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Die beiliegenden Akten stimmen überein mit den ursprünglichen Unterlagen der auf den nächsten Seiten bezeichneten, beim unterzeichneten Amt als Anmeldeamt im Sinne von Art. 10 des Vertrages über die internationale Zusammenarbeit auf dem Gebiet des Patentwesens (PCT) eingegangenen Patentanmeldung.

### Attestation

Les documents ci-joints sont conformes aux pièces originales relative à la demande de brevet spécifiée aux pages suivantes, déposées auprès de l'Office soussigné, en tant qu'Office récepteur au sens de l'article 10 du Traité de coopération en matière de brevets (PCT).

### Confirmation

It is hereby confirmed that the attached documents are corresponding with the original pages of the international application, as identified on the following pages, filed under Article 10 of the Patent Cooperation Treaty (PCT) at the receiving office named below.

Bern, 4 avril 2003

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1/4

218-1.B.WO-P

## PCT REQUEST

Original (for SUBMISSION) - printed on 03.04.2002 11:26:26 AM

0	For receiving Office use only	
0-1	International Application No.	PCT/CH 02 / 00191
0-2	International Filing Date	04. April 2002 (04.04.02)
0-3	Name of receiving Office and "PCT International Application"	RO / CH - Demande internationale PCT
0-4	Form - PCT/RO/101 PCT Request	
0-4-1	Prepared using	PCT-EASY Version 2.92 (updated 01.01.2002)
0-5	Petition The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty	
0-6	Receiving Office (specified by the applicant)	Swiss Federal Intellectual Property Institute (RO/CH)
0-7	Applicant's or agent's file reference	218-1.B.WO-P
I	Title of invention	HABITATION MODULE
II	Applicant	
II-1	This person is:	applicant and inventor
II-2	Applicant for:	all designated States
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## PCT REQUEST

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V	Designation of States	
V-1	Regional Patent (other kinds of protection or treatment, if any, are specified between parentheses after the designation(s) concerned)	<p>AP: GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW and any other State which is a Contracting State of the Harare Protocol and of the PCT</p> <p>EA: AM AZ BY KG KZ MD RU TJ TM and any other State which is a Contracting State of the Eurasian Patent Convention and of the PCT</p> <p>EP: AT BE CH&amp;LI CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR and any other State which is a Contracting State of the European Patent Convention and of the PCT</p> <p>OA: BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG and any other State which is a member State of OAPI and a Contracting State of the PCT</p>
V-2	National Patent (other kinds of protection or treatment, if any, are specified between parentheses after the designation(s) concerned)	<p>AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH&amp;LI CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW</p>
V-5	Precautionary Designation Statement  In addition to the designations made under items V-1, V-2 and V-3, the applicant also makes under Rule 4.9(b) all designations which would be permitted under the PCT except any designation(s) of the State(s) indicated under item V-6 below. The applicant declares that those additional designations are subject to confirmation and that any designation which is not confirmed before the expiration of 15 months from the priority date is to be regarded as withdrawn by the applicant at the expiration of that time limit.	
V-6	Exclusion(s) from precautionary designations	NONE
VI	Priority claim	NONE
VII-1	International Searching Authority Chosen	European Patent Office (EPO) (ISA/EP)

## PCT REQUEST

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<b>VIII</b>	<b>Declarations</b>	<b>Number of declarations</b>	
VIII-1	Declaration as to the identity of the inventor	-	
VIII-2	Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent	-	
VIII-3	Declaration as to the applicant's entitlement, as at the international filing date, to claim the priority of the earlier application	-	
VIII-4	Declaration of inventorship (only for the purposes of the designation of the United States of America)	-	
VIII-5	Declaration as to non-prejudicial disclosures or exceptions to lack of novelty	-	
<b>IX</b>	<b>Check list</b>	<b>number of sheets</b>	<b>electronic file(s) attached</b>
IX-1	Request (including declaration sheets)	4	-
IX-2	Description	35	-
IX-3	Claims	1	-
IX-4	Abstract	1	EZABST00.TXT
IX-5	Drawings	66	-
IX-7	TOTAL	107	
	<b>Accompanying Items</b>	<b>paper document(s) attached</b>	<b>electronic file(s) attached</b>
IX-8	Fee calculation sheet	✓	-
IX-17	PCT-EASY diskette	-	Diskette
IX-19	Figure of the drawings which should accompany the abstract	1	
IX-20	Language of filing of the international application	English	
X-1	Signature of applicant, agent or common representative		
X-1-1	Name (LAST, First)	ROLAND, André	

## FOR RECEIVING OFFICE USE ONLY

10-1	Date of actual receipt of the purported international application	04. April 2002 (04.04.02)
10-2	Drawings:	
10-2-1	Received	
10-2-2	<del>Not received</del>	
10-3	Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application	
10-4	Date of timely receipt of the required corrections under PCT Article 11(2)	
10-5	International Searching Authority	ISA/EP
10-6	Transmittal of search copy delayed until search fee is paid	X



PCT REQUEST

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**FOR INTERNATIONAL BUREAU USE ONLY**

11-1	Date of receipt of the record copy by the International Bureau	
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## Habitation module

### 5 Introduction / Summary

An "EZFlex" Baldakin Bed (BB) is a specially designed bed, which can be fully converted to a chair, with all intermediate configurations suitable for relaxation.

10 A Baldakin Capsule (BC) is a prefabricated, compact, sound insulated "private quarters" (i.e. bedroom and bathroom) where 2 to 4 persons can also relax, work, play, listen and view "immersive" multimedia, eventually in a BB.

15 BCs are usually manufactured in Baldakin Modules (BM) of 5 "Basic Twins" (or 4 "Deluxe Twins" or 8 "Singles") BCs fitted in a 40' ISO container frame (or of 4 "singles" in a 20' container).

20 The BCs of a BM can be cleaned semi-automatically with the assistance of a Baldakin Servant (BS).

25 Two BMs can be typically combined face-to-face (f2f), reaching a width of only 24' (7.3m), including the built-in central corridor (Respectively 12' (3.7m) or 16' (5m) in case of "twin" or "single" BCCs).

30 The combination of BCs and/or BMs, on one or several levels, allows the speedy and easy construction of very compact, economical yet attractive, collective housing facilities such as hotels, cruise ships & ferryboats, student housing projects, camps, etc... when complemented with the usual "shared facilities".

How it all started?

*It probably all started in our mother's womb,...*

- 5 ...Where we felt secure, in the dark, with all external sounds attenuated, like "immersed" in a cosy pre-life environment...

*More seriously, it all started with the problem of noise pollution...*

- 10 Have you ever dreamt of a place, where you could take a short nap, read, meditate or simply relax, without being disturbed by outside noises?

Obviously, this can be achieved by designing a kind of a closable "box", using adequate acoustic soundproofing materials and insulated from the ground by silent-blocks...

15

If it is soundproofed, couldn't you use that same "box" to listen to the music of your choice, be it an opera or techno at full throttle (specially that modern rhythmic bass), without disturbing your family or neighbours?

- 20 Why then not add video, and a tactile sound transducer to make this a good place to play and feel DVDs and videogames?

By the way, couldn't that same "box" be used also as a bedroom, to sleep, for a short siesta or even the whole night?

25

To sleep you need a bed, which you can also convert as a relaxing couch or even a chair when you are not sleeping, especially if you wish to play games or watch a video.

- 30 This means that our "box" should be able to accommodate at least two persons, which requires two beds, which can be made into a double bed in case these two persons are a couple.

Why not then use our "box" as your bedroom?

*But, what about claustrophobia?*

5 Did our ancestors suffer from it when they were sleeping in a canopied four poster bed ("lit à baldaquin") or box bed ("lit clot")?

Isn't it natural for man (like many animals) to sleep in a cosy, enclosed bed, otherwise eventually set in an alcove/recess?

10 *This brought other considerations...*

The first one is that the "modern" man is actually already accustomed to spend a large part of his life in exiguous spaces like the cabin of a commercial (or even a business) jet, his automobile, the cabin of his truck, or of a sailing boat, a tent, a caravan or a camping car, not  
15 to speak of the Japanese city "hotels"...

The above examples show that an exiguous living space is by no means  
associated with "cheap".

20 An even better example of the opposite is that of the exiguous living space the astronauts share in the cabin of a space capsule or aboard a space shuttle...

Doesn't this mean that our "box", even if exiguous, could be made attractive as a bedroom, especially if it does not try to look like one but appears designed specifically for a purpose,  
25 like a space capsule...?

Another consideration is that people usually do not spend a lot of their time in their bedroom, except when using the bed to sleep, to read a book, to watch TV or to perform other activities.

30 Furthermore, people who stay, even temporarily, in groups, like guests in a hotel or students sharing a flat, are all too happy to share the living and dining rooms, the study/meeting rooms, the kitchen, the bar, the swimming pool & fitness/spa, the cellar, the laundry, eventually the "Home cinema", etc... but not the toilets nor the bathroom, nor of course their bedroom,

which we will call hereafter the "private quarters" (in opposition to the a/m "shared facilities").

If these private quarters could be housed skilfully in our "box", with a bed really convertible to a chair, couldn't they become an attractive alternative to the traditional bedroom, at least for collective housing facilities, such as a hotel, a student housing project, a base camp, a cruise ship, a ferryboat, etc...?

In other words, if we could indeed design individual private quarters which are small yet attractive, could they be offered at a low enough price to induce people to consider changing their "sleeping" habits?

*What about economical considerations then?*

First of all, we live in a world where living space is more and more scarce and therefore expensive.

Small private quarters mean not only saving space and therefore on capital investment per "guest" but also cheaper heating/cooling and cleaning and other maintenance costs.

Even more important, by designing small, integrated private quarters, wouldn't it be possible to industrialize their production, i.e. to achieve the same kind of quality and savings achieved with the industrial production, for example of caravans?

The following Baldakin concept is the result of all these considerations.

## "EZFlex", the Baldakin Bed (BB)

As stated in our introduction:

- 5 *An "EZFlex" Baldakin Bed (BB) is a specially designed bed, which can be fully converted to a chair, with all intermediate configurations suitable for relaxation.*

10 The "EZFlex" Baldakin Bed (BB) is a novel approach to the possibility of converting a bed to a chair (and the opposite), particularly useful in cases where the exiguity of a "bedroom" does not allow for both a bed and a chair, like in a "Baldakin" capsule.

15 Most attempts to solve this problem so far have failed to solve the problem of the "incompatibility" between a soft, flat, full length bed and a chair which needs to be firm, shaped (profiled) and "shorter" (Indeed, the full length of the mattress required for a bed cannot be used in a chair, which requires a shorter leg section).

20 Motorized beds, for example, have a limitation in the angle achievable by the head elevation mechanism, mainly because of the fact that, when folded, too much length of the mattress accumulates at the base of the splat of the chair, (which by the way requires a blocking device at the bottom of the bed to prevent the mattress from slipping, unnecessary with the BB system)

25 This makes it all the more uncomfortable that, due to the forward position of the articulation between the ilium and the femur, a man's "developed length" from neck to toe shorter when lying on his back than when he is sitting.

The BB concept solves all these problems.

30 An BB apparatus is a combination of several rigid articulated frames, the shape of which varies with its "deformation" to become a flat bed, a relax couch/sofa or a straight chair.

The sitting level can either be fixed for all configurations (i.e. in most cases and for example for a use in a "Baldakin" "basic" or "deluxe" capsule) or at the lowest level for each

configuration, i.e. at ground level for the bed, which is required for example in the case of a "Baldakin" "Compact" capsule.

5 The relevant frames are fitted with specially designed "converters" in lieu of the usual foundation slats.

### *The Converters*

10 These "converters" have basically two positions: "Hard" and "Soft", between which they can be rotated.

In the "Hard" position, the "converter" is rotated so that the slat bearing the mattress is a rigid metal profile, which height can be adjusted to give an adequate "profile" to the mattress.

15 In the "Soft" position, the "converter" is rotated so that the slat bearing the mattress is a flexible wood (or plastic, single or twin) slat, fully covered with a thick foam "cushion" which "increases" the mattress thickness accordingly.

20 The rotation between the "Hard" and "Soft" positions is done, by pulling a cable fixed on each "converter" of a row or, alternatively, by pushing or pulling a rigid bar linking each "converter" in that row.

25 The rows of distributors lining what are the "Seat" and "Back" sections in the chair configuration are mounted in "opposite" directions, so that the "developed" distance between these two parts is increased when switching the "converters" from "Soft" to "Hard".

Each of the four sections of the apparatus has the "converters" set in "Hard" or "Soft" position, depending on the actual configuration of the apparatus.

30 The converters of the "(leg) Support" and "Headrest" sections are actually normally always in the "Soft" position.

Those of the "Seat" and "Back" sections are in a "Hard" position when the apparatus is configured as a chair and in a "Soft" position when the apparatus is configured as a bed and can be either for the intermediate in-between Relax configurations.

- 5 The last "converter" of the "Seat" section, next to the "(leg) Support" section could also be set permanently in the "Soft" position (i.e. including in the chair configuration) to increase comfort at the thigh-calf articulation.

- 10 The distance between "converters" can be adjusted, to allow sufficient clearance between them, particularly when the height of the rigid profile is increased to give a "profile" to the mattress (in the chair/relax configuration) at a specific location such as under the thigh or the loin.

- 15 The number of, and the distance between the "converters" can also be adjusted to fit the dimension of the (typical) user.

- 20 The contact surface between the converters and the mattress can be lined with a soft lubricating material to ease friction when the "converter" is switched between "Hard" and "Soft" positions.

Finally, the activation of the converters (in "waves") can achieve a relaxing massage effect.

### *The Configurations*

- 25 The configuration of the apparatus itself is determined by the position of a frame fixed to the back part of the apparatus (from the ground to the top of the headrest).

If it is horizontal, the apparatus is a bed. If it is vertical, the apparatus is a chair. In between, the apparatus is a relax armchair.

- 30 The armrests, fixed to (and guided to remain parallel to the seat section) are collapsible.

It is to be noted that the frame can be lifted higher to reach a vertical position, useful for leaning or as a stow-away position suitable for example for cleaning



The top of that frame can be designed in a way that it slides on a rail fixed vertically on the headboard and is fixed to a cable running in that rail.

- 5 That frame is allowed to incline itself, by pulling the cable down, and letting the bottom of the frame, fixed to a horizontal rail or on casters, distance itself from the base of the vertical headboard, eventually with the assistance of a spring to give the necessary starting impulse.

- 10 The articulations between the other frames are guided by rails so as to ensure an adequate angle between them and thereby the correct positioning of the seat sections.

- 15 The chair can be motorized, eventually using only one electric motor, pulling on the cable fixed on the back frame, with the cables rotating the "converters" being activated through a sprocket (which is itself rotated when passing by the notch of a rack positioned adequately on the back wall.

- 20 The problem mentioned above, that the full length of the mattress required for a bed cannot be used in a chair, which requires a shorter leg section, is solved by the fact that that "excessive" length of mattress is fixed, on an independent foundation located at the bottom of the bed. In the Bed configuration, the "moving" section of the mattress connects to that fixed section to reach the full bed length. The shapes the mattress at the end of both section is angled in a way preventing the user's feet from going under the fixed section.

### *Other applications*

25

- It is to be noted that the applications of the Baldakin Bed (BB) are not limited to the Baldakin Capsules, but can have a much more universal appeal, not only whenever the exiguity of a "bedroom" does not allow for both a bed and a chair, but also, for example when there is a requirement for a bed to be transformed in a chair, such as for disabled people, in hospitals or at home.
- 30

In such cases, the chair can be mounted on wheels and freed from the cable fixed to the back frame to be able to use it as a normal wheel chair...

## The Baldakin Capsule (BC), Module (BM) & Servant (BS)

As stated in our introduction:

- 5 *A Baldakin Capsule (BC) is a prefabricated, compact, sound insulated "private quarters" (i.e. bedroom and bathroom) where 2 to 4 persons can also relax, work, play, listen and view "immersive" multimedia, eventually in a BB.*

- 10 *BCs are usually manufactured in Baldakin Modules (BM) of 5 "Basic Twins" (or 4 "Deluxe Twins" or 8 "Singles") BCs fitted in a 40' ISO container frame (or of 4 "singles" in a 20' container).*

*The BCs of a BM can be cleaned semi-automatically with the assistance of a Baldakin Servant (BS).*

15

### *The Baldakin Capsules (BC) & The Baldakin Modules (BM)*

In practice, a BC is an integrated private quarters, small and cheap, but attractive for its users.

- 20 "Small and cheap" implicates that it should be produced industrially and delivered to the site in an easy, modular manner.

- 25 This lead us naturally to the idea of designing a BC, which could fit in an ISO container, which have an 8' (2.43m) external width and 8'6 (2.60m) external height (or 9'6 (2.90m) for the "Hi-Cube" type), combined with standard lengths of 10', 20' and 40' (3.05, 6.10 and 12.2m respectively).

- 30 The natural choice was to design the BC to fit into a container of 8' x 8'6 x 10' or a multiple thereof, i.e. 4 BCs per 40' container. This would give a BC with the following internal dimensions (to take into account the thickness of the frame and of the insulation material):  
 $L = 2.82\text{m}$ ,  $W = 2.26\text{m}$  and  $H = 2.36\text{m}$  (or 2.66m for the "Hi-Cube").

Although we have designed a "Deluxe" BC model on the basis of the above dimensions, we have actually managed to design a "Basic" BC model so that five "Twin" Capsules (or 10 "singles") can fit in a 40' container.

#### 5 *The "Twin" Baldakin Capsule (BC)*

A "Twin" Capsule is a BC with 2 beds (and 2 additional berths) and a private bathroom, which will suit most cases.

- 10 Based on the above, a "Basic Twin" BC has the following internal dimensions: L = 2.26m (versus 2.82m for the "Deluxe"), W = 2.26 and H = 2.36m.

It can be factory produced and dispatched in modules of 5 "Basic" (or 4 "Deluxe") BCs pre-fitted in a 40' container frame.

15

Each of these similar BCs is basically a square box, made for example of "marine-type" plywood, covered inside and/or outside with carpet and/or other soundproofing materials.

- 20 All materials inside the BC shall be black or dark coloured, except the mattresses (preferably in a "sharp" colour), the eventual projection screen and the bathroom (as stated hereafter).

Each BC shall be linked to the container frame through silent blocks for proper sound-insulation.

- 25 A BC is actually not fully operational at time of shipment.

Indeed, an angled front part (which can be shipped in the same container) has to be erected on the site, which is very simple and fast since it does not contain any piping and very limited cabling.

30

This front part is a very important feature of the BC design.

Indeed, it allows not only to add the required depth to the BC to provide for full length beds (210cm), eventually BBs, but also to heighten the entrance to the BC, so that one walks a few

steps down into the BC, giving the user the unusual but pleasant impression of walking down ("into a nest, a den"), reminding that of going from the cockpit into the cabin of a sailing boat.

5 This difference of level, associated with the angled design of the front part, allows also a narrower corridor between BCs. Indeed, from 4' (1.2m) wide up to the waste-level (i.e. approx 3' (90cm) over the walking path, where the width is not so important), it becomes wider to reach 8' (2.4m) at eye level, which will give to the user the impression of using a wide corridor.

10 This allows the typical face-to-face (f2f) combination of two 40' BMs, with a width of only 24' (7.3m), including the corridor in-between.

One enters into the BC by sliding sideward (or folding up) the central angled frame fitted with transparent glass and walking down into the black or dark BC.

15

These and the two other angled frames on each side of this entrance can be occulted from inside to obtain intimacy and or/darkness (for video watching) by using special darkening glass (actuated by light or electrically), or just curtains, or slide-down panels housed under the ceiling of the BC, which can be used as a screen for video projection or to hold a flat screen TV/monitor (which can also be fixed to the opening central angled frame), as well as the "front" loud speakers (if the BC is fitted with such expensive equipment).

20

In fact, one of the key attractions of the Baldakin concept is the possibility that the BC be filled with state of the art multimedia electronics at an attractive cost. Indeed, in view of the limited dimensions and volume of a BC, a standard multi-media PC with out-of-the-shelf peripherals would provide enough "multimedia power" to allow the customer to immerse himself into TV programs, films, games, internet and intranet info, etc made available to him through a Local area network (LAN) or intranet.

25

30 Otherwise, a simple TV set can be fixed to the opening central angled frame or hanged to the ceiling of the BC, with a "balanced" holding apparatus, which allows an effortless positioning and stowing away.

The lower section of the angled front part is not transparent for obvious reasons. It can be either plain or, in case of multiple layers of BCs, it can be composed of the same frames as the upper parts, but fitted with mirrors, in order to increase the luminosity of the corridor(s) located in the lower level(s).

5

The corridor located at an upper level, linking two BM in the typical f2f combination, is usually covered with a transparent or a trans-lucid angled or rounded "roofing".

10

This, together with the see-through path linking the BCs (made in metal or plastic grate or in a trans-lucid material), should ensure some natural light in the corridor on the lower level(s) when several layers of BCs are combined together, supplemented with some artificial lighting using some hidden (natural or "warm" colour type) neon tubes.

15

It is to be noted there that the use of a standard (not Hi-Cube) container frame is suitable in most of the cases, but the use of a "Hi-Cube" allows for the corridor to be fully enclosed in the container frame.

20

After walking down these few steps, one walks into a passage, with a 210cm x 80cm (90cm in the "Deluxe" version) long bed (eventually a BB) on each side, leading to the "bathroom", which is fitted with a large window, to provide more natural light to the whole BC.

25

The equipment of the bathroom, which, unlike the rest of the BC is white or light coloured, is composed of WCs on one side and a shower on the other (together with a full size cabinet for clothes) with a washbasin in the middle, under the window, as well as the eventual heating/air-conditioning unit. A duckboard extends under the shower and the central sections of the bathroom.

30

A sliding door, fitted with glass, eventually frosted, of the type used for shower cabins, is installed between the bathroom and the rest of the BC. That door or the window can be occulted by means of a curtain (or, for example, the window can be occulted by internal shutters covered with mirrors) to ensure the required privacy and/or darkness.

The two beds located on each side of the passage are articulated and eventually motorized. They can be of a standard design or of a special design (BB type), which allows for them to be fully converted to a chair.

- 5 One other very important point of the BC's design is the fact that these two beds can be made into a double bed by moving them sideward, through a system of slides, rollers or a dual position cam(?).

- 10 This is obviously blocking the passage to the bathroom when the beds are joined, but the occupant of one side can then slide/roll his bed back, leaving then enough passage for that person to squeeze out to the bathroom (or out of the BC) without disturbing the other occupant.

- 15 This system allows also for the storage of sheets, quilts and pillows in the space made accessible behind the beds when they are pulled out.

- 20 The two extra beds/berths (located at the upper level) are only 2m long and narrow from 80cm to 55cm at feet level (in the "B" version only), which should not be a problem, since they will, most of the time, be used by children.

Part of each of these upper berths is foldable up (to move it out of the way) or down, to act as the back part of a sofa, together with the lower bed acting as seating part.

- 25 This means that the BC can then be used as a sitting room, with 2 people sitting comfortably on each side.

- 30 On each side a foldable table is fixed on the partition, hidden, when stowed away, behind the a/m sofa back-part. It is designed so that it may be used by the occupant of the lower bed, or by the person(s) using the opposite lower bed as a sofa.

### *The "Single" Baldakin Capsule (BC)*

A "Single" Capsule is a BC with 1 bed (and 1 additional berth) and a private bathroom, which will suit cases where individual occupancy is a must.

A "Single" BC has the following internal dimensions:  $L = 2.26\text{m}$ ,  $W = 1.41$  and  $H = 2.36\text{m}$ .

5 It can be factory produced and dispatched in modules of 8 "Single" BCs pre-fitted in a 40' container frame (or 4 in a 20' ISO container frame).

Generally, the description and functionalities of the "Single" BC are very similar to those of a "Twin" BC. A simple foldable table is fitted on the partition opposite the bed.

#### 10 *The "Compact" Baldakin Capsule*

In a Baldakin "Compact" Capsule, the bed or beds are lower, when in a fully extended position, and occupy the space under the central corridor.

15 The bed or bed(s) are preferably BB type, with lowest height, i.e. with the bed and relax configurations at ground level.

The space fitted allows for the implantation of additional storage space, compared to the "Basic" or "DeLuxe" capsules.

20

However, in the case of a "Compact Single" BC, the bed is narrower at the bottom, so that the beds of two consecutive BCs are "in staggered rows".

25 It also means that a module with "Compact" BCs cannot be located over a module fitted in a standard (not "Hi-Cube") ISO container frame.

Otherwise, the description and functionalities of the "Compact" BC are very similar to those of a "Basic" BC.

30

*The Baldakin Capsule Without Private Bathroom (WPB)*

Any BC "Compact" or "Basic" (or even "DeLuxe"), "Single" or Twin" can be designed and supplied without a private bathroom, for example, due to width limitations.

5

In such cases, a special bathroom capsule can be included in the BM and shared by all the BCs of that BM.

10

The most simple example is that of a "Compact" BC WPB fitting fully into a "Hi-Cube" container frame, including the corridor, under which the bed extend.

*The Baldakin Modules (BM)*

15

The BMs can be industrially produced in a factory, which could be located virtually anywhere, as long as it has road or rail access.

20

These container modules can be produced in an industrial manner, pre-furnished, with pipes and cables pre-installed and eventually the outside external "skin" (pre-fitted with thermal insulation and the windows), fastened to or welded onto the container frame.

25

The ISO container frames and the skin can be made of steel or aluminium alloys, depending on the importance of the weight factor, as well as the required resistance and the corrosion exposure.

30

Each Baldakin Module have single inlet points for electricity, telecom/network (internet & intranet), cable TV, hot and cold water, heating and cooling fluids (if/when applying), as well as the required ventilation inlet and outlet and wastewater outlet, so that the various modules can be assembled and connected together without much connection work.

Eventually, the BC could be delivered un-complete, particularly regarding the electronic equipment, and could be finished at a local assembly point or on the erection site, where the Baldakin Modules could then be completed and fastened or welded together to become part of a chosen Baldakin combination.



Other components such as the ISO container modules housing the "shared facilities" could also be pre-fitted in containers, thereby allowing the saving of considerable amounts of time and money compared to the traditional construction.

- 5 It is to be noted that most combinations of BCs, as shown hereafter, can be based on entire BMs of "twin" or "single" BCs, fitted in a 40' ISO container frame.

This should allow not only savings on manufacturing and stocks, but also a better design and manufacturing quality control on a single product.

10

However, the BM could also be 20 or 40' container frames housing a combination of various types of BCs and even BCs WPB (with or without a shared bathroom capsule).

15

### *The Baldakin Servant (BS)*

- 20 Each module will have a foldable trolley running on rails, which are next and parallel to those of the BC's sliding door.

This trolley, which will be usable to carry luggage, catering and/or other goods, will be stored in a folded position at the end of each BM.

- 25 This trolley will also be used to carry the cleaning equipment, to allow an easy vacuum and wet cleaning of each BC.

- 30 This could be done at least partially by a kind of robot assistant, which would be programmed to clean semi-automatically all the (or the pre-selected) BCs of a module in a row before being moved to the next module/trolley, a.s.o.

That robot assistant, called the "Baldakin Servant" (BS) would have one or several arms, which would enter the BC and vacuum clean it thoroughly, before wet cleaning the bathroom and windows, perfuming the bathroom.

- 5 The degree of sophistication of the BS would depend of course on the type and sophistication of each project as well as the number of BCs to be cleaned at one location.

For, example if there are only a few BMs to be cleaned, the BS could consist only of a trolley fitted only with a movable arm, which would assist the cleaning staff.

10

In a larger structure like a multi-storey hotel, the cleaning could be more automated, but, in any case, the BS would need to be operated by one person, and the role of the BS would be more to increase the productivity of the staff than to replace it.

15

### Combination of Baldakin Caps and Modules

- 20 As stated in our introduction:

*Two BMs can be typically combined face-to-face (f2f), reaching a width of only 24' (7.3m), including the built-in central corridor (Respectively 12' (3.7m) or 16' (5m) in case of "twin" or "single" BCs WPB).*

25

*The combination of BCs and/or BMs, on one or several levels, allows the speedy and easy construction of very compact, economical yet attractive, collective housing facilities such as hotels, cruise ships & ferryboats, student housing projects, camps, etc... when complemented with the usual "shared facilities".*

30

The fact that the private quarters are relatively small in size (and hopefully in cost) should allow the investor to spend more attention and money for the equipment of the BCs and "Shared facilities".

This exiguity is at least partially compensated by the a/m lockable storage, which will allow the guests to store, during their stay in the BC, the luggage and extra clothing and personal belongings, which could eventually not fit in the BC.

- 5 This additional storage can be located in a less accessible part of the housing facility, eventually next to a laundry (coin or staff operated).

The combination of BMs does not need to be face-to-face (f2f). However, this combination is the one which offers most space-saving, at least for the larger structures.

10

The Baldakin system is particularly suitable to equip Cruise Vessels, where space is so scarce, allowing one to use the saved space to make more "shared facilities" available to the cruising guests.

- 15 We have therefore presented hereafter several examples of the Baldakin system application to cruisers, and particularly to cruise Catamarans.

### Example 1: The Baldakin Camp

This is actually the most basic combination of BCs, each housing unit consisting of two modules in their typical face-to-face (f2f) combination, on only one level.

5

This means that each housing unit holds 10 "Basic Twin" BCs (or 8 "Deluxe" or 16 "Single" BCs), with a capacity of 16 to 40 persons, depending on the occupancy.

10

In the most basic example illustrated in the next page, up to four housing units can be connected on one side to one 40' container modules housing the "shared facilities", providing for 40 "Basic Twin" BCs, housing 80 to 160 people, in a construction spreading on only 88'x 52' (26.4m x 17m).

15

The lone container connecting the 4 BM f2f combinations could house in fact very limited amount of shared facilities, which are normally housed in other buildings.

However, these could be increased by adding other containers to the side of that lone container or on top of it.

20

It is to be noted that at one end of each BM f2f combination some steps have been foreseen to allow the residents to get out at ground level.

Similar stairs could be foreseen also on the other end, unless the container(s) housing the shared quarters is set at a higher level above the ground.

25

The angled roof (at least partially made of glass) installed over the BCs corridors could be avoided in case the BM modules are based on "Hi-Cube" containers.

30

Eventually, they could be repeated between the parallel f2f combinations, thereby increasing the covered area usable for shared facilities (as shown on the illustration).

## Example 2: The Baldakin Cruiser

The Baldakin concept would give access to cruising to a whole new breed of (younger) clients who would like to go on a cruise for holidays but could not afford it so far.

5

One of the great advantages of the compact private quarters offered by Baldakin can be realized when designing a cruise ship.

Indeed, where more than on a ship is space scarce and expensive?

10

Thanks to the Baldakin system, small private quarters allow also the combination of several private quarters in a limited volume, hence the possibility of lodging a large number of people in a small volume.

15

When typical standard cabins in existing sailing cruisers range between 90sqft (8.4sqm) up to 195sqft (18sqm) (for Club Med 2), a "Basic Twin" BC offers full comfort for up to 4 passengers in a  $8 \times 10' = 80\text{sqft}$  (7.4sqm) area, i.e. about half the average standard cabin size found in usual sail cruisers.

20

This should definitely not be seen as a handicap by cruise customers, specially in view of the marine environment and the fact that they will stay only a few days or weeks on board and spend less of their non-sleeping time outside their cabins than inside.

25

Furthermore, there are several key advantages of the BC over standard cabins: The sound and vibration insulation (specially when motor cruising) and the fact that all the berths are oriented sideward (which makes the sleeping passenger much less disturbed by the boat's roll, specially when occupying a double bed).

30

It is to be noted also that, in the following cruiser designs, two BMs are usually separated lengthwise by a space of approx 8' (2.4m) not only to allow for the eventual positioning of the dagger-board, a side entrance or only a view point with balcony, but also for safety reasons such as the implantation of fireproof doors and stairs and boat emergency exits.

The front tip of each hull, which would be fitted with crushable and floating volumes, would usually be used as an additional lockable storage and cloakroom for each B, while the aft half of the lower level of each hull would be dedicated to the ship machinery, equipment, tanks, etc....

5

The shared area per guest ratio is rather high with the Baldakin system, particularly on catamarans where a 10 to 15sqm per guest ratio is obtained.

10

This should allow some very complete "shared facilities", which would more than compensate for the exiguity of the BCs (cabins).

15

For example, the larger Cruisers could offer, in addition to the above storage facilities, a Shop with Vending/Ice machines, Several (2 or 3) Dining/Meeting/Living areas indoor plus Outdoor "café", and barbecue, a Bar/Piano/Discotheque, Spa/Jacuzzi/Fitness, outdoor Recreation facilities & equipment (Motor-boating, Water-skiing, Fishing, Diving, Windsurfing and simply Sunbathing, Swimming, etc... and Relaxing), Intranet/Cable and Home Cinema/Entertainment, Infirmary, etc.

20

Such cruise vessels, which would normally be built of aluminium or steel alloys (at least for the larger models), could be at least pre-constructed in the factory producing the Baldakin modules, which could itself be located virtually anywhere as already stated above.

25

These similar 40' container modules (and eventually 20', in case of "Single" BCs) could indeed be produced in an industrial manner, pre-furnished, with pipes and cables pre-installed and the outside external "skin" at the back (pre-fitted with the windows) and eventually at the top and on the sides welded on the container frame, which could be used as a structural part of the vessel.

30

These Baldakin container modules could then be fastened and welded together at the shipyard to become part of the hull.

Other components such as the modules housing the machinery and the laundry & storage at the bottom of each hull, but also some of the common facilities such as the kitchen, etc. could

also be pre-fitted in containers, thereby allowing the saving of considerable amounts of time and money compared to the traditional ship construction.

- 5 The type and size of and Baldakin cruiser depends essentially on the required passenger capacity and width (beam) of the hull(s).

The Baldakin system is particularly suitable to design cruise catamarans, thanks to the limited width of the BCs (even of the f2f combinations).

- 10 You will find hereafter short studies of power and/or sail driven catamarans, ranging from 80' to 200' in length, fitted with 2 to 26 BMs, i.e. suitable for 20 to almost 520 passengers (i.e. crew + guests), based on the occupancy of 1 or 2 persons per "Twin" BC and 2 to 4 per "single".

- 15 It is to be noted that, when a BM is a mixture of "Single" and "Twin" BCs, the "single" crew cabins could be separated from the "twin" passenger cabins by a (fireproof) partition equipped with a door, which could also be fitted between the modules.

## 20 *80' Catamaran Cruiser*

The smallest hull width is actually 8', i.e. one BC base. However, since the hull would then be asymmetric, two hulls would preferably be combined to form a Catamaran.

- 25 The smallest Catamaran, holding one standard ISO 40' container module (BM) in each hull, would be about 80' (24m) long. Based on the usual beam to overall length ratio of up to  $\frac{1}{2}$ , its beam would be approx 40' (12m).

- 30 The total number of persons housed on board in "Basic Twin" BCs would be 20 to 40, depending on the occupancy

This includes the crew, numbering 6 to 12, based on the "industry-standard" ratio of 1 crew for 3 "guests", which, like the passenger "payload" of 14 to 28 would be housed in "Twin" BCs.

However, if "Basic Single" BCs are preferred, for example, for the crew, the total number of passengers would then be reduced to 16 to 24, depending again on the occupancy, representing 4 "Basic Single" BCs for the crew and for example 6 "DeLuxe Twins" for the guests.

The covered "shared areas" in such a cruiser would be one sole deck in-between the hulls, i.e. 20' x 40' (or 6m x 12m), i.e. 72sqm, plus the free space in the front part of each hull, i.e. a total of 10sqm usable for additional "private" storage of approx 1.0cbm for each guest BC.

Based on the outdoor deck space (including the front "trampoline") of about 40' x 70' (12m x 21m), i.e. approx 250sqm, the total shared area per guest would be around 330sqm, i.e. around 20sqm per guest (or 40sqm per "twin" cabin/BC), which is much more than the average common areas of 5sqm found on a traditional, even motor driven, cruise ship!

It is to be noted that, in these smaller catamarans (80' to 120') with only one level/deck of BCs, all these have not only the window directly on the sea but also unobstructed daylight bathing their front part.

### *100' Catamaran Cruiser*

This is roughly the same design as the 80' catamaran described above except that it is longer (30m), to include two 20' and two 40' BMs in each hull.

Based on the two 20' BMs holding a total 6 "Basic Single" for the crew and 1 "Deluxe Twin" for the Skipper, the two 40' BMs could hold a total of 10 "Basic Twin" BCs, housing a total of 20 to 40 guests.

This would make it the perfect size boat to make a group of teenagers discover the beauty of sailing during a week "camp".



The cruiser beam would be increased to 50' (15m), roughly doubling the shared areas.

### *120' Catamaran Cruiser*

- 5 This is roughly the same design as the 80' and 100' catamarans described above except that it is longer (36m), to include two 40' BMs in each hull, i.e. for example, 14 "Basic Single", 1 "DeLuxe Twin" and 20 "Basic Twin" BCs in total, housing a total of 36 to 72 passengers, i.e. 9 to 18 crews and 27 to 54 guests, depending on the occupancy.
- 10 The cruiser beam would be increased to 60' (18m).

### *160' Catamaran Cruiser*

- 15 This "intermediate" size cruiser is based on a hull beam of 15' (4.5m), i.e. including the corridor width in addition to the BC's full width.

This catamaran, each of which hull would contain 2 x 2 modules stowed on top of each other, would therefore have a capacity of a total of 14 "Basic Single", 1 "DeLuxe Twin" and 30 "Basic Twin" BCs, i.e. 16 to 32 crews and 60 to 130 guests, based on the same ratio mentioned above.

20

Each of the BCs would have a window with a view on the on the outside sea, subject to the waterproofing of the windows at the lower level being very well taken care of, since same will often be at or under the water level.

25

The overall dimensions of the vessel would be approx 160' (49m) long and 72' (22m) wide, with a single indoor deck of 12m x 22m i.e. 264sqm and an outdoor deck of the same size on top, half of which could be covered, and to which should be added the 150sqm "trampoline" between the front section of the two hulls.

30

The shared areas would also comprise the outdoor hull decks (representing around 120sqm), the distribution corridors (i.e. about 100sqm), plus some 60sqm laundry and storage area in the front part and in (the front section of) the lower deck of the hulls.

- 5 This represents a total of about 950sqm in shared areas, i.e. more than 15sqm per passenger of which about half is indoors.

### *200' Catamaran Cruiser*

10

With an overall width of 24' (7.3m) for the typical face-to-face combination, one can have 2 BMs per 40' (12m) length in each hull per level (deck), which allows the design of larger cruise catamarans with a beam of 24' for each hull.

- 15 An exciting proposal would be to combine two hulls 24' (7.3m) wide to design a large cruise catamaran, sail and/or motor powered.

- This hull width would allow for example the building of a sailing catamaran cruiser only, approx 200' (60m) long by 88' (27m) width, housing a total of 260 to 520 passengers and  
20 crews on 5 decks i.e. more than half the passenger and crew load of the 614ft (187m) long Club Med 2 on 8 decks....

- Indeed, the (partial) combination of 3 face-to-face modules, partially on 3 levels (decks), would provide for 13 BMs in each hull, i.e. a total of 100 "Basic Twin" BCs, and 46 "Basic  
25 Singles" and 1 "DeLuxe Twin", all with view on the sea, except the "Singles".

In conformity with the a/m typical ratio of 1 crew to 3 guests, the Crew would represent 48 to 96 persons, taking care of 200 to 400 guests, depending on the occupancy.

- 30 A laundry (eventually coin operated) and a lockable private storage (together with a cloakroom for the sailing clothes), of approx 1cbm for each cabin of one hull, would be easily accessible in the lower deck in the front half of the same hull.

The central internal section on both decks of each hull would house the stairs, as well as one or two elevators and a shared rest space, together with crushed ice and vending machines for soft and hot drinks, snacks, etc...

- 5 The "shared quarters", consisting of the above described laundry, storage, rest area and vending facilities, representing approx 150sqm per hull, i.e. 300sqm, plus the approx 200sqm of the corridors linking the BCs and the other common area of approx 1150sqm divided between two fully covered levels (decks) between the hulls, providing a comfortable 7.5sqm covered shared quarters per guest or 22sqm per cabin/BC.

10

Should be added to the above about 650sqm in open-air deck space, providing a total common area of about 15sqm per passenger (or 30sqm per cabin/BC).

### 15 *Larger Catamaran Cruisers*

Larger Catamarans could of course be built around BMs, particularly using the typical f2f combination on more than 2 decks.

- 20 This could allow the manufacturing of fast Ferry Boat Catamarans for overnight (or several nights) crossings, loading cars and trucks on decks between two hulls filled with BCs.

### *Other Cruisers*

25

The Baldakin system is also of course very suitable for the construction mono-hull Cruisers of a minimum width of 24' (7.3m), i.e. based on the typical f2f BCs combination (so that the design is symetric).

- 30 One could reasonably design a motor Cruiser in the 80' (24m) range, with one module length (i.e. 12m) F2f combination on one level (deck).

Since, probably, "Basic Single" BCs are preferred, for example, for the crew, the total number of passengers would be 16 to 32, (depending on the occupancy), representing 4 "Basic Single" BCs for the crew and for example 6 "DeLuxe Twins" for the skipper and for the guests.

5

More interesting is the application to riverboats, which must be, by design, long and narrow.

A typical, traditional, 200'x 24' (i.e. 60m x 7.3m) River Cruiser, would normally have cabins for 50 passengers and 14 crew, i.e. 32 twin cabins.

10

Based on the Baldakin system, one could easily fit in the same space twice 2 levels of f2f BM combinations, i.e. for example, 14 "Basic Single", 1 "DeLuxe Twin" and 20 "Basic Twin" BCs in total, housing a total of 36 to 72 passengers, i.e. 9 to 18 crews and 27 to 54 guests, depending on the occupancy.

15

The Baldakin system is of course suitable as private (sleeping) quarters for the largest vessels...

### Example 3: The Baldakin Hotel

Hotels built with the Baldakin system should particularly be attractive to the business traveller who merely wants a bed to sleep, like in the "Formula 1" Hotels, a low-end chain of the French group Accor.

However, the savings made with the industrial production of modules should allow to compete with such very economic hotels by adding a few shared facilities such as a swimming pool and spa, a rooftop restaurant and bar and an open atrium filled with tropical plants.

We have, for example, designed a "prefabricated" hotel, 15m x 15m, on 6 floors, of which the bottom one is used for the reception, the administration, laundry, etc...as well as the spa and swimming pool.

The 4 middle floors would consist of 3 times f2f BM combinations, i.e. a total of 120 twin room BCs, with a capacity of 120 to 480 persons, depending on the room occupancy rate of the room. (Since no staff is normally housed in such a hotel no "single" BCs have been foreseen in that example).

The top floor is housing a panoramic bar and restaurant, with their relevant kitchen and bathrooms, as well as a terrace.

All kind of smaller or larger motels, youth hostels or hotels could be designed in the same manner, the difference of category stemming not only from the equipment of the BCs, and particularly their sound and video equipment but also from the quantity and quality of shared facilities.

## Variations on the Baldakin concept

5 As shown by the examples presented hereover, the Baldakin System can be used whenever there is a need for an economical, prefabricated (and eventually fast-implemented) collective housing facility, i.e. not only to build economical camps, ships or hotels, but also students housing projects, holiday bungalows, etc...

10 The f2f combination, based on a "Hi-Cube" ISO 40' container frame, with a steel back and face of the module, eventually equipped with smaller bullet-proof windows, facing the outside, would make a BM based facility, equipped with "Twin" or "Single" BCs most suitable as barracks for the military, or as cells for inmates, or as a "bomb" shelter, particularly when buried underground.

15

Other BC combinations could also open other uses for other BM based facilities, such as the Terrace type combination, whereby each BC uses the top or one below as a terrace, as shown in the attached sketch. This would allow for example to take advantage of the slope of a terrain to build a prefabricated holiday housing complex.

20

And of course, the Baldakin system can be used for other purposes than collective housing.

For example, a "Basic Twin" BC could be installed in someone's (existing or specially built) home or garden (as an "appendice" to the house or self standing), and could be used also as a  
25 bedroom/studio for visiting friends.

It could also be built in as an integral part of a Mobile-Home or attached to one.

Such a "temporary" building would probably not require a building permit, specially if it is  
30 mounted on wheels.

Anyhow, in such cases, the BCs would need to be manufactured and supplied as independent units, not in modules (but still deliverable on flat bed trucks).

As stated above, one could think of designing a new construction, which would integrate some BCs as part of a new house.

- 5 In such cases, the BC would probably not need to be equipped with a separate WC and bathroom, i.e. could be a BC WPB, and the entrance to the BC could be done through a back door, which could be integrated in a wall-to-wall cabinet so as not to affect adversely the decoration of the house.
- 10 Furthermore, the BC's angled front part would protrude outside the façade of the building, eventually linking to a balcony or a terrace.

- Another field of application would be the use of BCs as simulators or stimulators, for various tuition or demonstration purposes, in which case they would be loaded with state of the art
- 15 electronics and could even be articulated on a motion platform...

Finally, applications of the BC concept could be expanded in the field of land (road & rail) and even aerial transportation, where the size and weight of the capsule are paramount, but where passengers do not stay usually for more than one night.

20

For such cases, the design of the BCC (i.e. without bathroom) can be adapted to fit into a single container width, including the corridor, by using a "hi-cube" container frame (i.e. 9'6 high instead of the usual 8'6) and by allowing for the bed to extend under that corridor.

- 25 All this to say that the possible applications of the Baldakin concept are very wide and probably largely unforeseen at this early stage...

## Marketing the Baldakin Concept

It will all depend on how much protection we can achieve for this concept.

5 If it appears that the Baldakin concept and system can be properly covered by one (or several) patent(s), we could consider granting:

- several non-exclusive production licences for the Baldakin Beds to industrial companies already motorized slat beds (such a Lattoflex, Swissflex, etc...) ...

10

- several non-exclusive production licences for the Baldakin Capsules and Modules to industrial companies already manufacturing ISO containers, or caravans, mobile-homes, etc... who would be requested to agree to produce these at prices agreed upon

15 and

- several non-exclusive or exclusive marketing licenses for the various applications, i.e. 3C and BM combinations, to industrial companies and entrepreneurs for each field: Camps, Hotels, Cruisers, Single units, etc..., which could be "sliced" further, according to the projects location, size, etc....

20

This would allow us to retain control of the global operation by acting as the interface between both types of licensees.

25 It is obvious that, if only the design of the Badlakin beds, Capsules and Modules can be protected, we would have to consider granting the production and marketing licenses to single entities.

30 In both cases, we should try to retain overall control of the Baldakin name to make sure that it is not associated with products of lower quality or deviating from the Baldakin concept.



This could be helped by keeping control of the website www.Baldakin.com and by establishing an on-line Baldakin Store, where both the licensees and the end-customer could shop for Baldakin information and hardware.

- 5 This could be usefully complemented by Baldakin Showrooms, implanted in good locations in large cities, where people could actually view and try a BB and a BC.

Eventually, the marketing of the Baldakin Bed could be done separately, eventually under another name such as EZFlex (and through a website called www.EZFlex.com) in view of the  
10 other potential applications than within the Baldakin concept, such as a hospital bed, etc....

## Illustrations of "EZFlex", the Baldakin Bed

Illustration "EZFlex"

	Possible configurations (with lowest height)	1
	Possible configurations (with fixed height)	2
5	Consecutive configurations (with lowest height)	3
	Consecutive configurations (with fixed height)	4
	"Converter" in "Soft" position	5
	"Converter" in "Hard" position	6
	"Converter" in "Soft" position <i>Side view</i>	7
10	"Converter" in "Hard" position <i>Side view</i>	8
	"Converter" Serie	9
	"Converter" spacing	10
	"Developed" distance increase between "Soft" & "Hard" positions	11
	Chair configuration	12
15	Relax configuration "Hard"	13
	Relax configuration "Hard-back"	14
	Relax configuration "Soft"	15
	Bed (or vertical) configuration	16
	Configuration change (Principle)	17
20	Bed configuration (Detail)	18

## Illustrations of the Baldakin Concept

HC = Based on a "Hi-Cube" 40' container frame

WPB = Capsule without a private bathroom

5

### Baldakin Capsules (BC) & Modules (BM)

1 to 9

"Basic Twin" capsule *Side view/section*

1

"Basic Twin" capsule *Side view/section (opposite side)*

2

"Basic Twin" capsule *Top view/section*

3

10 "DeLuxe Twin" capsule *Top view/section*

4

"Basic Single" capsule *Top view/section*

5

"Basic Twin" capsule *Front view/section*

6

"Compact" capsule WPB (HC) *Side view/section*

7

"Compact Twin" capsule WPB (HC) *Top view/section*

8

15 "Compact Single" capsule WPB (HC) *Top view/section*

9

20' Module of "Compact Single" capsule WPB (HC) + Shared Bathroom *Side & Top view*

10

40' Module of "Basic Twin" capsule *Front & Side views*

11

### Baldakin Face-to-face combinations

12 to 19

20 Face-to-face Combination of "Basic Twin" capsules/modules *Top & Side view*

12

Face-to-face Combination of "Basic Twin" capsules on 2 levels *Cross section*

13

Face-to-face combination of "Compact Single" capsules *Side view/section*

14

Face-to-face combination of "Compact Single" *Top view/section*

15

Face-to-face combination of "Compact Single" capsules WPB (HC) *Side view/section*

16

25 Face-to-face combination of "Compact Single" capsules WPB (HC) *Top view/section*

17

Face-to-face combination of "Compact Twin" capsules WPB (HC) *Side view/section*

18

Double F2f combination of "Compact Single" capsules WPB (HC) *Side view/section*

19

### Baldakin Base

20 & 21

30 Camp basic layout *Top view*

20

Camp basic layout *Side view*

21

	Baldakin Cruiser	22 to 37
	80' Catamaran cruiser <i>Top view</i>	22
	80' Catamaran cruiser <i>Side view</i>	23
	80' Catamaran cruiser <i>Cross section</i>	24
5	100' Catamaran cruiser <i>Top view</i>	25
	100' Catamaran cruiser <i>Side view</i>	26
	100' Catamaran cruiser <i>Cross section</i>	27
	120' Catamaran cruiser <i>Top view</i>	28
	120' Catamaran cruiser <i>Side view</i>	29
10	120' Catamaran cruiser <i>Cross section</i>	30
	160' Catamaran cruiser <i>Top view</i>	31
	160' Catamaran cruiser <i>Side view</i>	32
	160' Catamaran cruiser <i>Cross section</i>	33
	200' Catamaran cruiser <i>Top view</i>	34
15	200' Catamaran cruiser <i>Side view</i>	35
	200' Catamaran cruiser <i>Cross section A</i>	36
	200' Catamaran cruiser <i>Cross section B</i>	37
	200' Catamaran cruiser <i>Cross section C</i>	38
	80' Powerboat cruiser <i>Top view</i>	39
20	200' Riverboat cruiser <i>Top view</i>	40
	200' Riverboat cruiser <i>Side view</i>	41
	200' Riverboat cruiser <i>Cross section</i>	42
	Baldakin Hotel	43 & 44
25	6 Floors Hotel <i>Front view/section</i>	43
	6 Floors Hotel <i>Side view/section</i>	44
	Other applications	45 to 48
	"Basic Twin"capsule WPB integrated in a building <i>Side view</i>	45
30	"Basic Twin"capsule WPB integrated in a building <i>Top view</i>	46
	"Step" Combination of "Basic Twin" capsules <i>Side view</i>	47
	"Military camp" based on "Compact Single" capsules (HC) <i>Side view</i>	48

**Claim**

1. Sound insulated habitation module comprising an equipment for allowing the stay of at least one person.

5

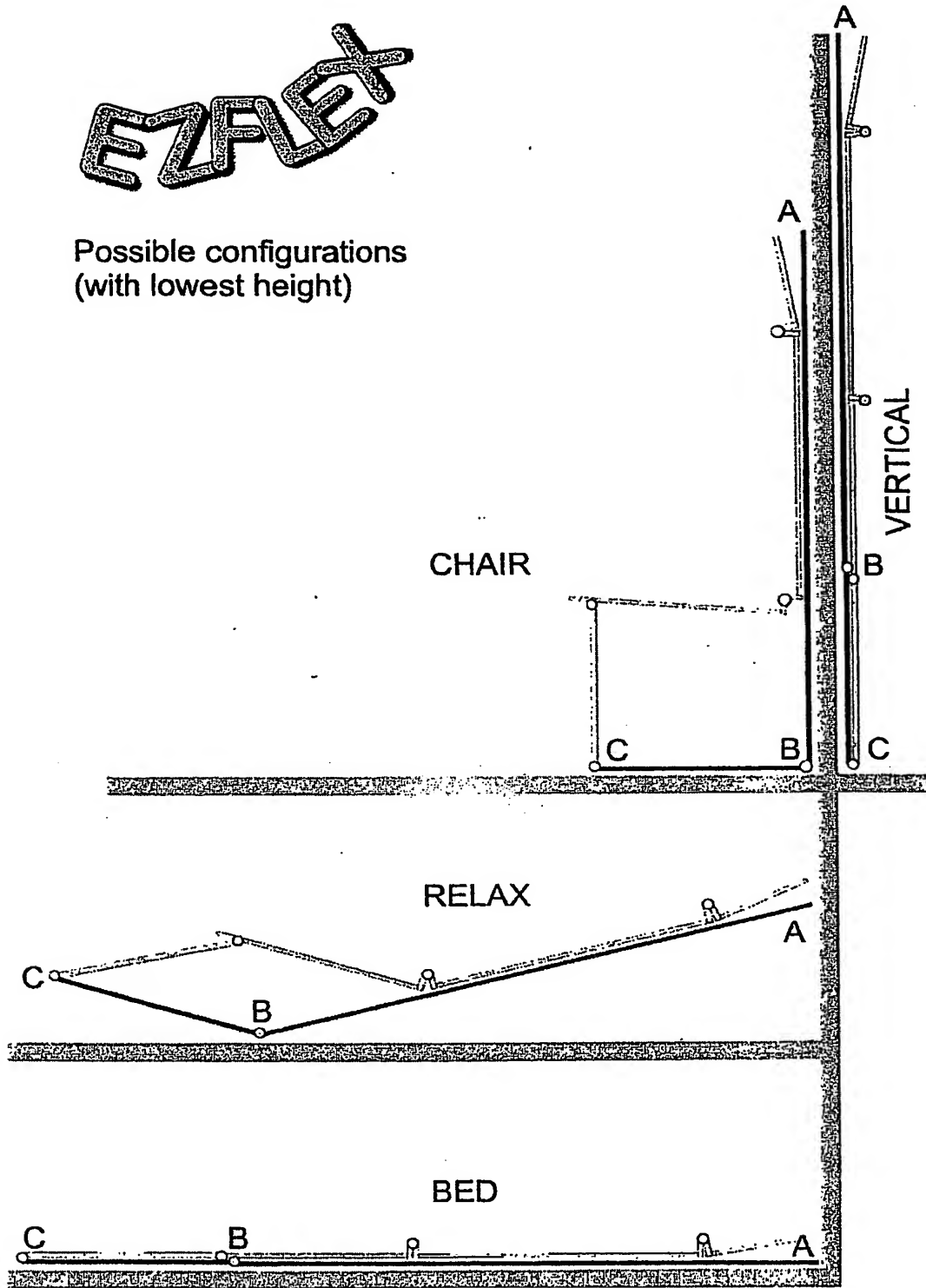
Abstract

The invention relates to a sound insulated habitation module comprising an equipment for allowing the stay of at least one person.

5

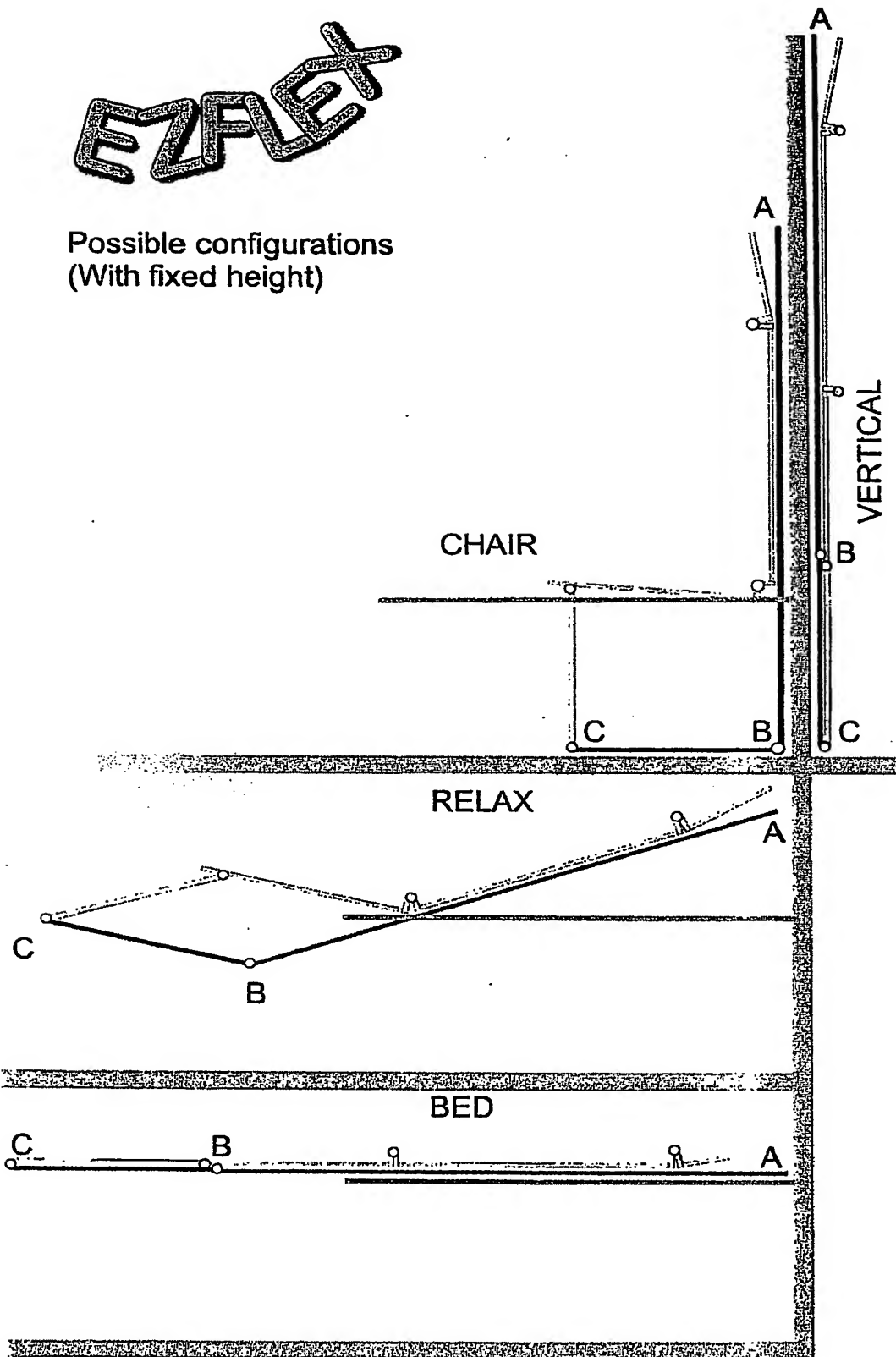


Possible configurations  
(with lowest height)



# EZFlex

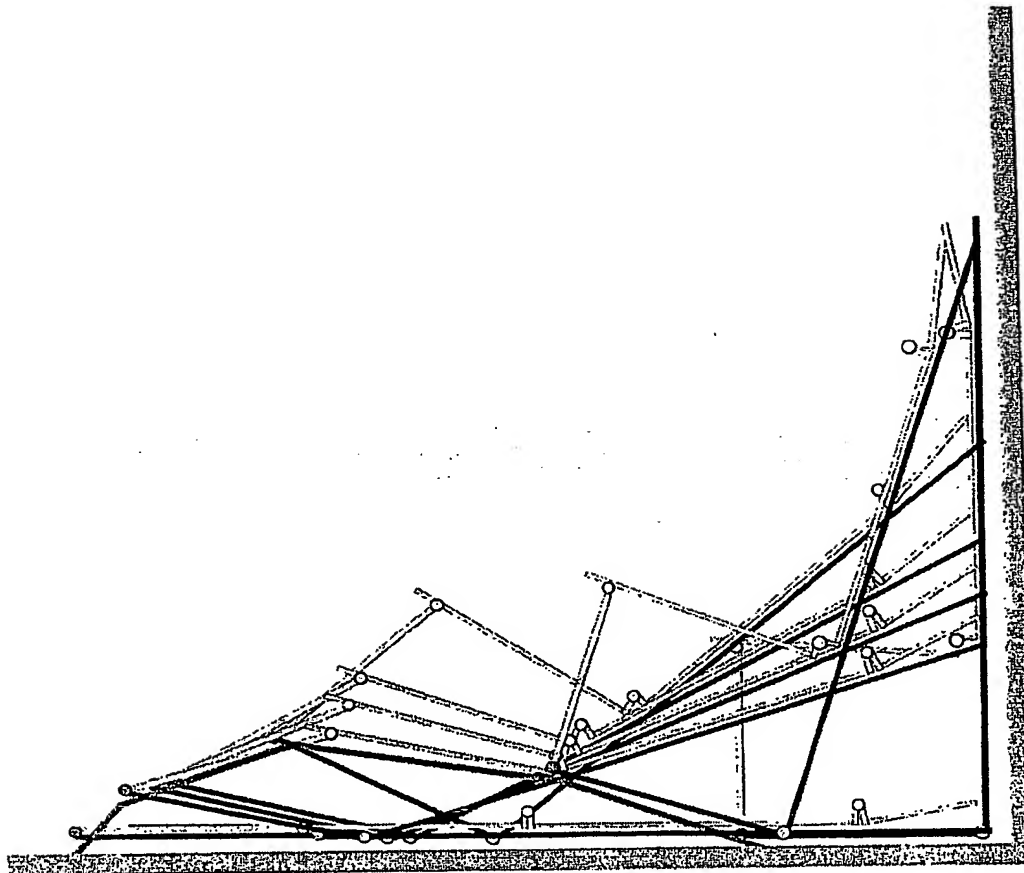
Possible configurations  
(With fixed height)





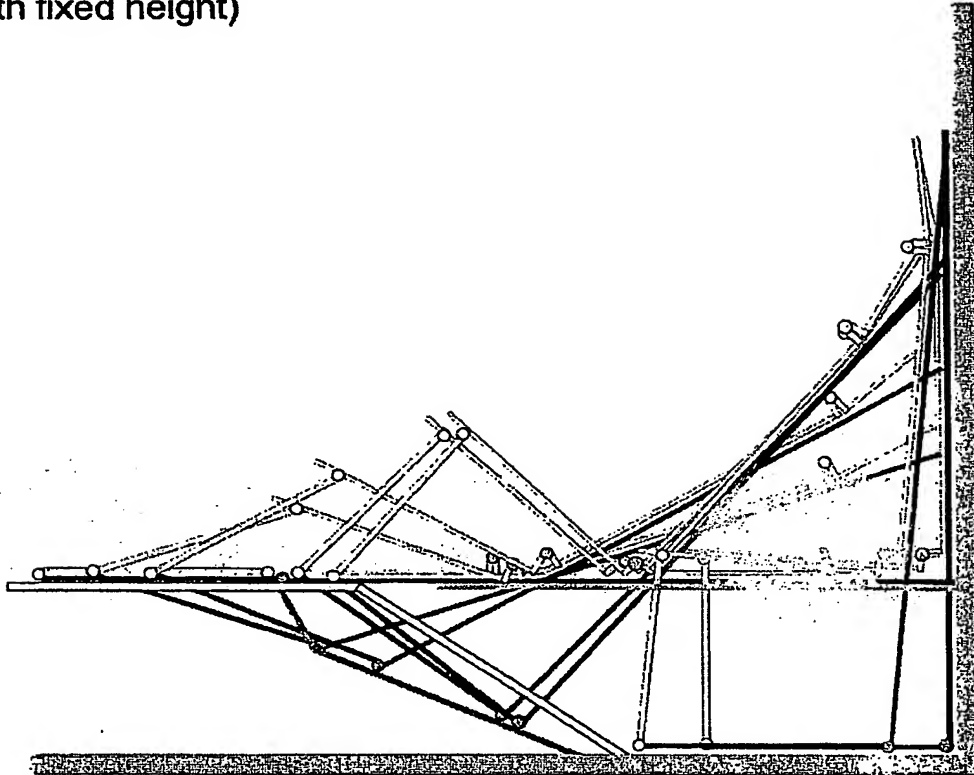
**EZFlex**

Consecutive configurations  
(with lowest height)



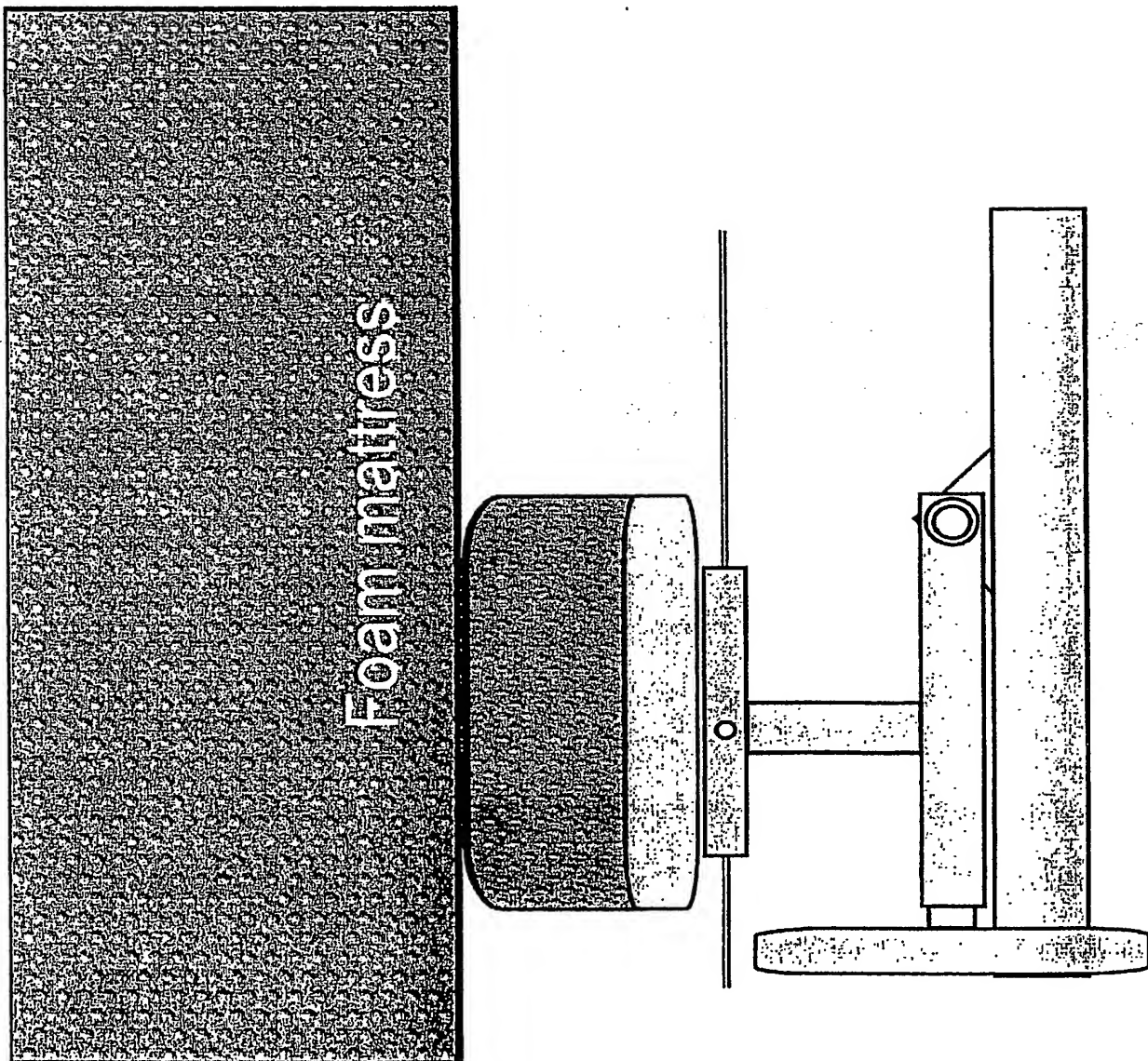
**EZFlex**

Consecutive Configurations  
(With fixed height)



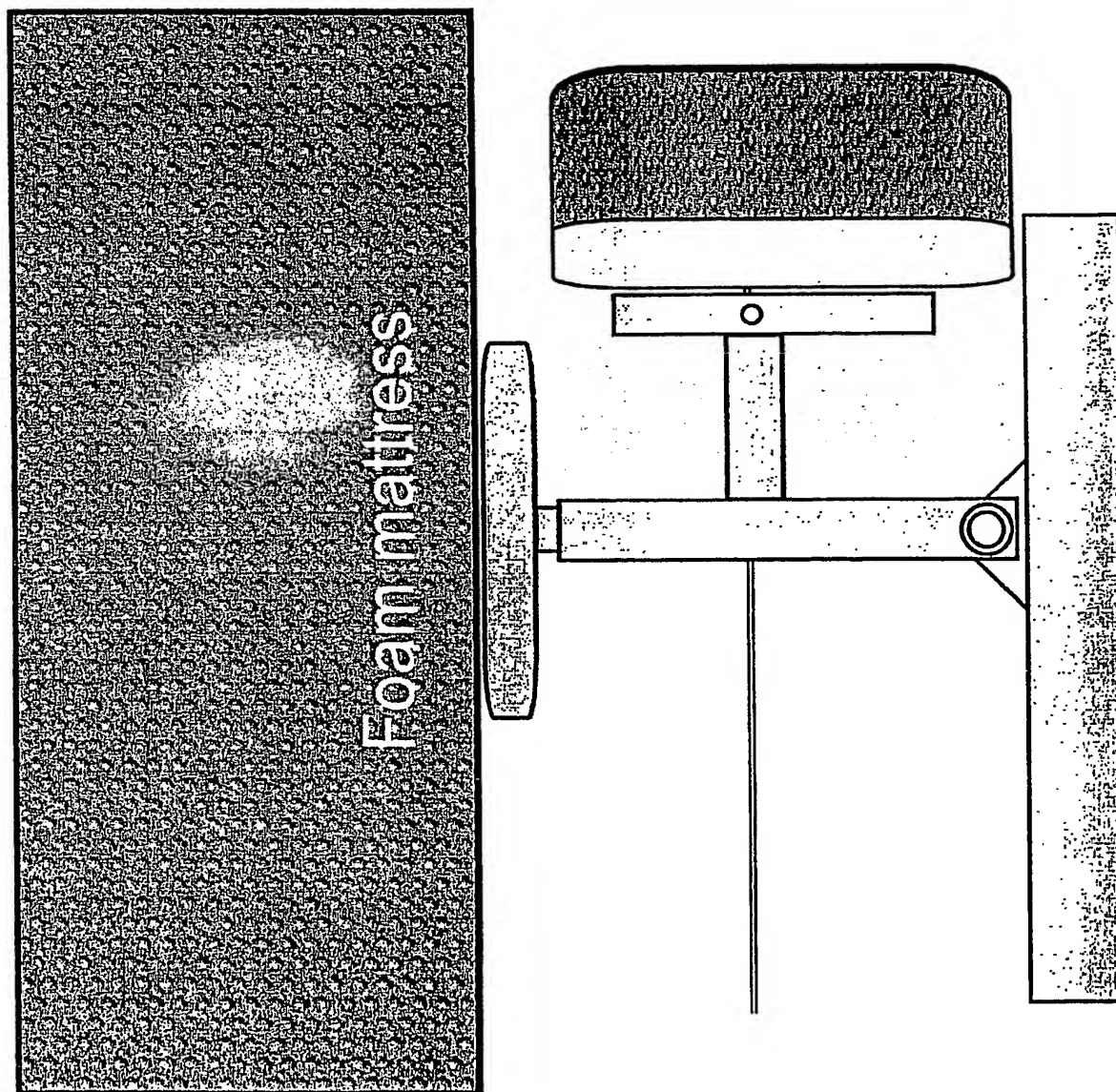
**EZFlex**

"CONVERTER" in "SOFT" position



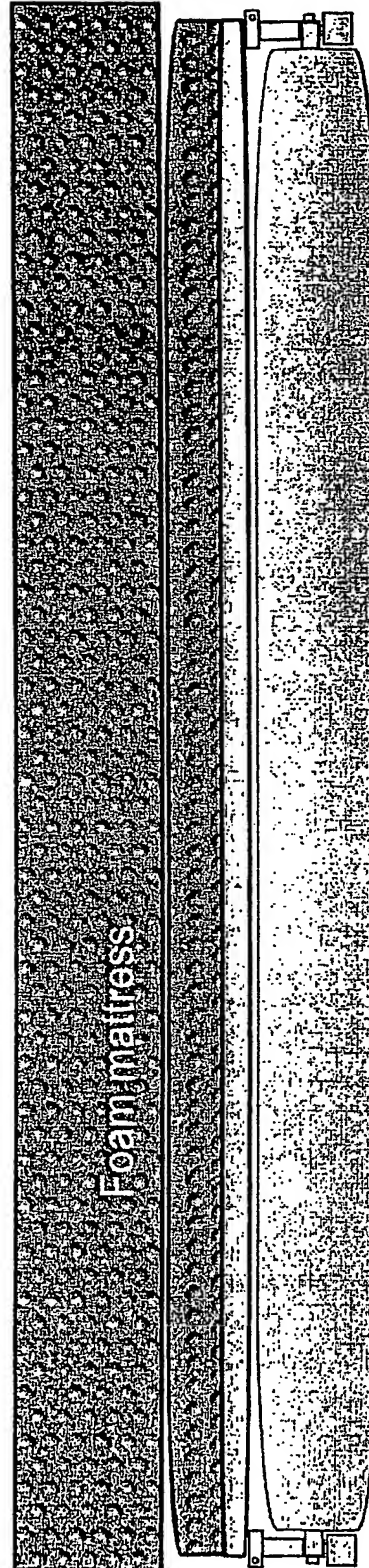
**EZFlex**

"CONVERTER" in "HARD" position



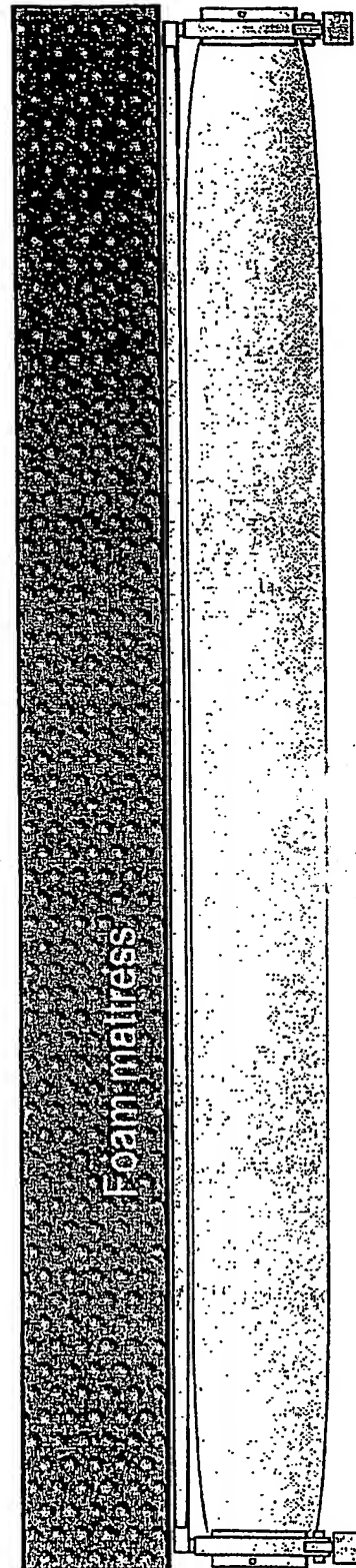
**EZFlex**

"CONVERTER" in  
"SOFT" position  
Side view



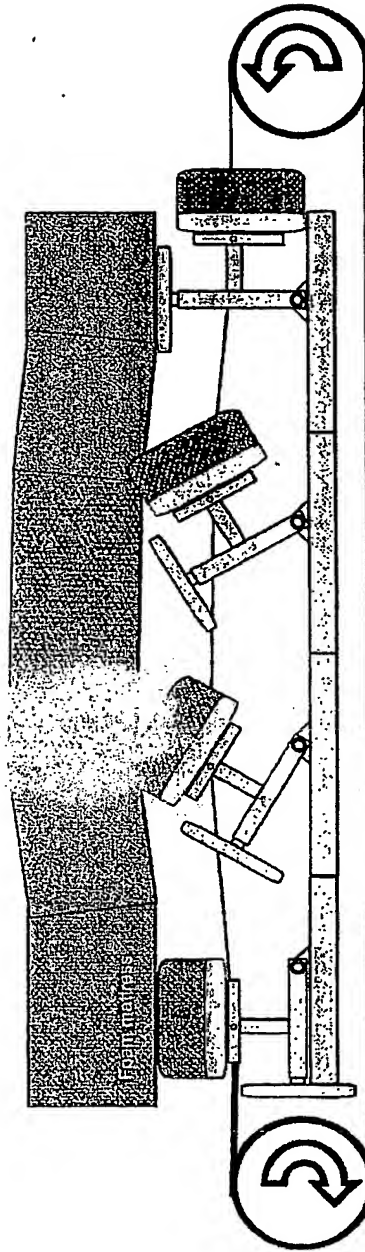
**EZFlex**

"CONVERTER" in  
"HARD" position  
Side view



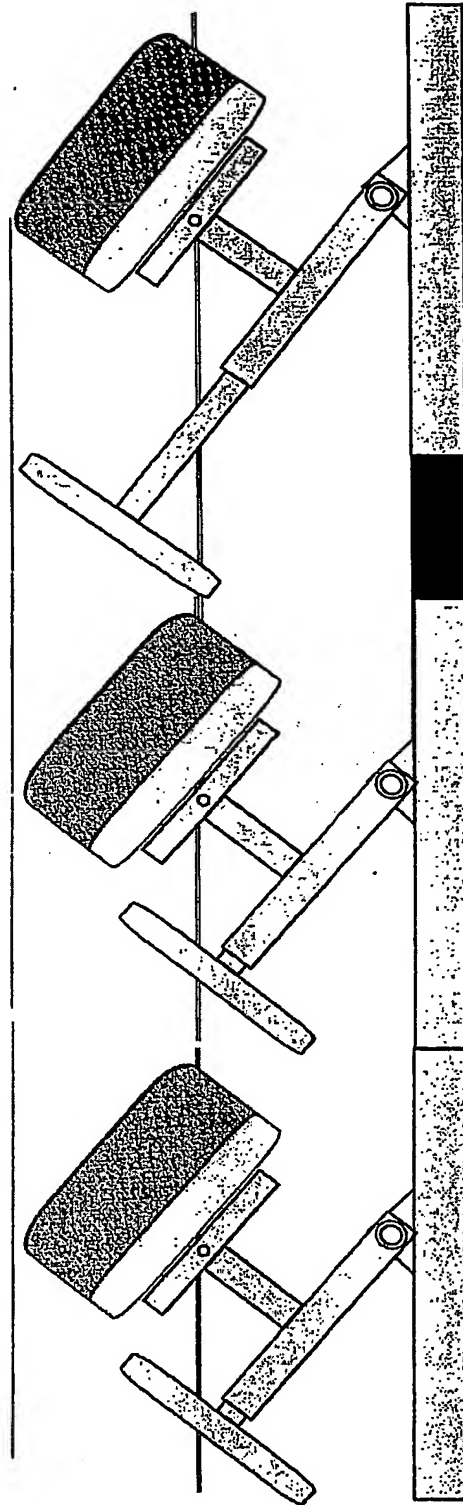
**EZFlex**

"CONVERTER" Serie



**EZFlex**

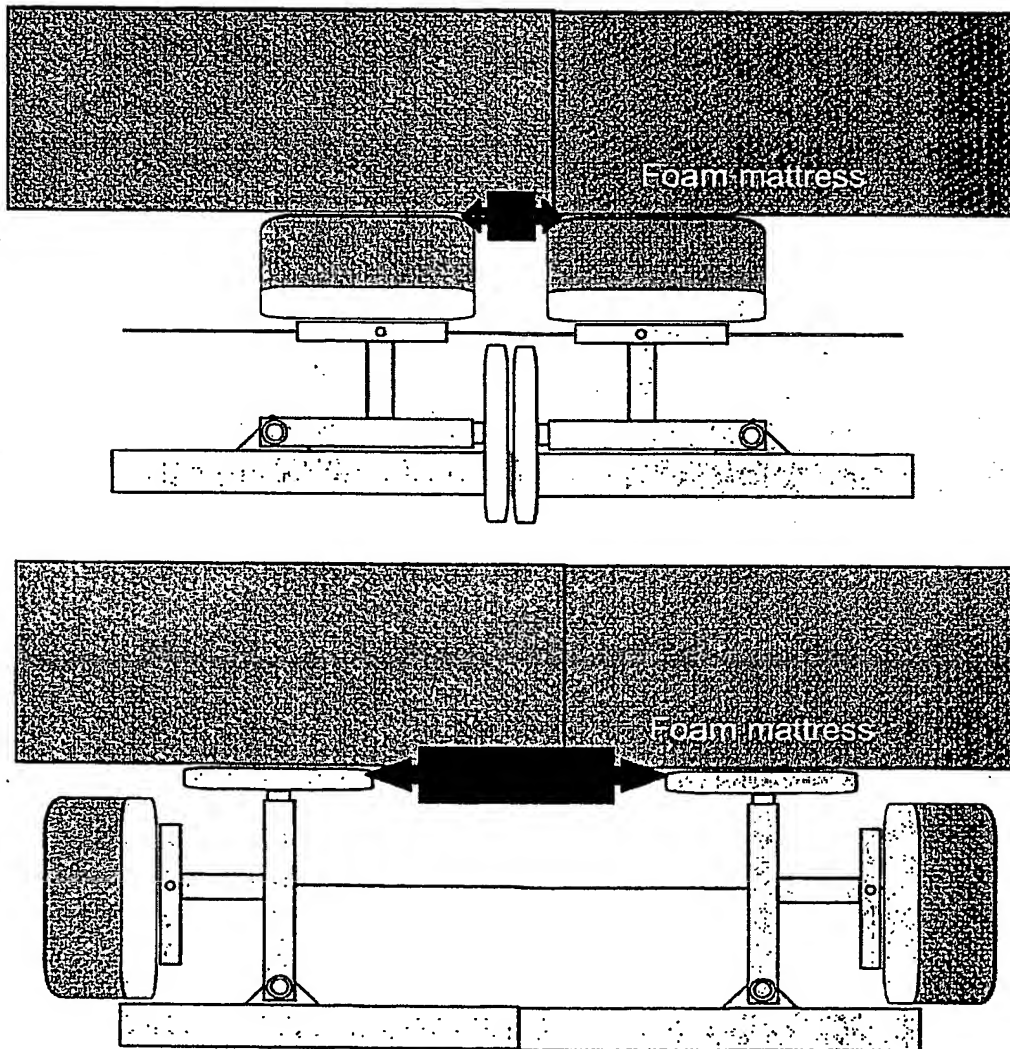
"CONVERTER" Spacing





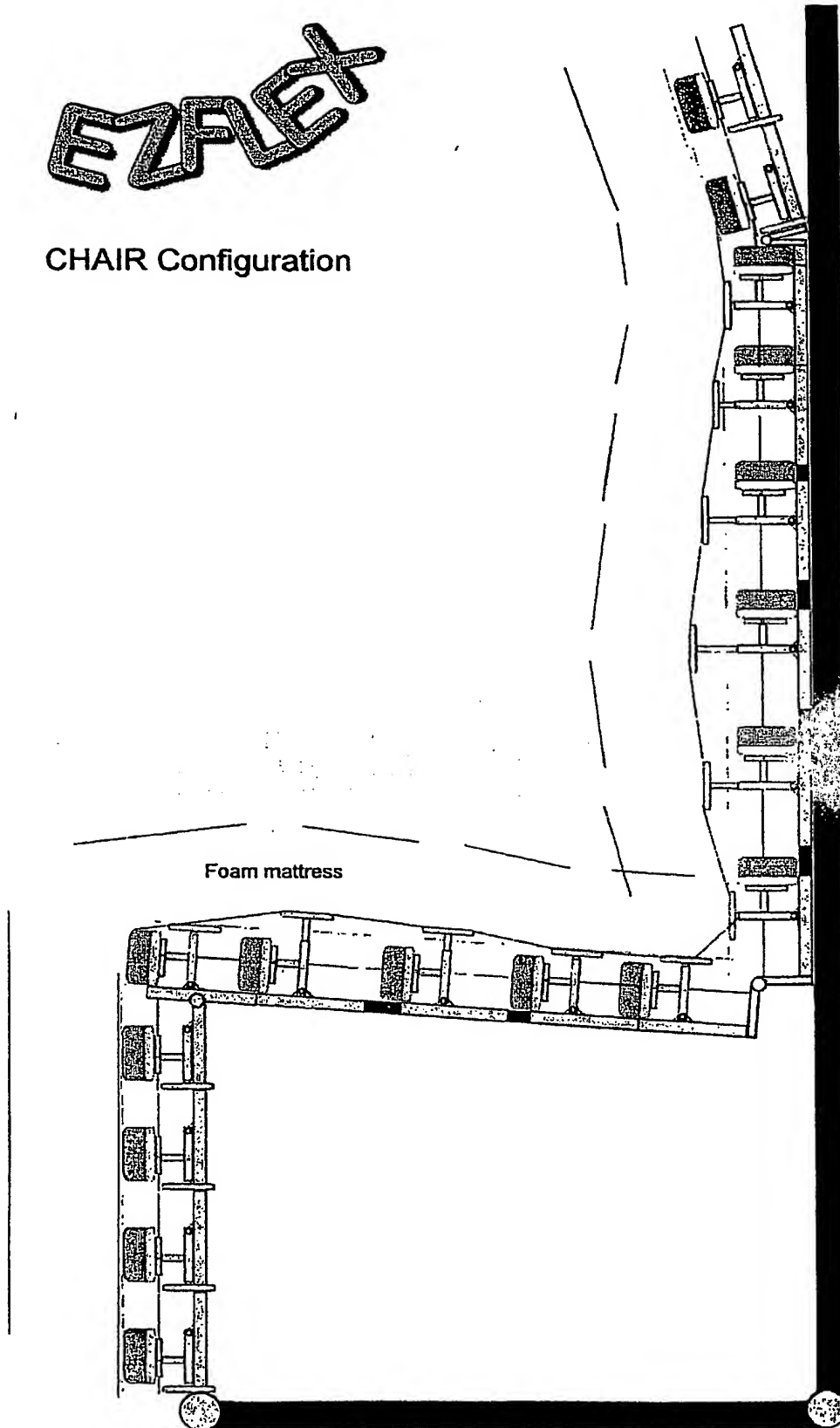
**EZFlex**

"Developped" distance increase  
between "Soft" & "Hard" positions



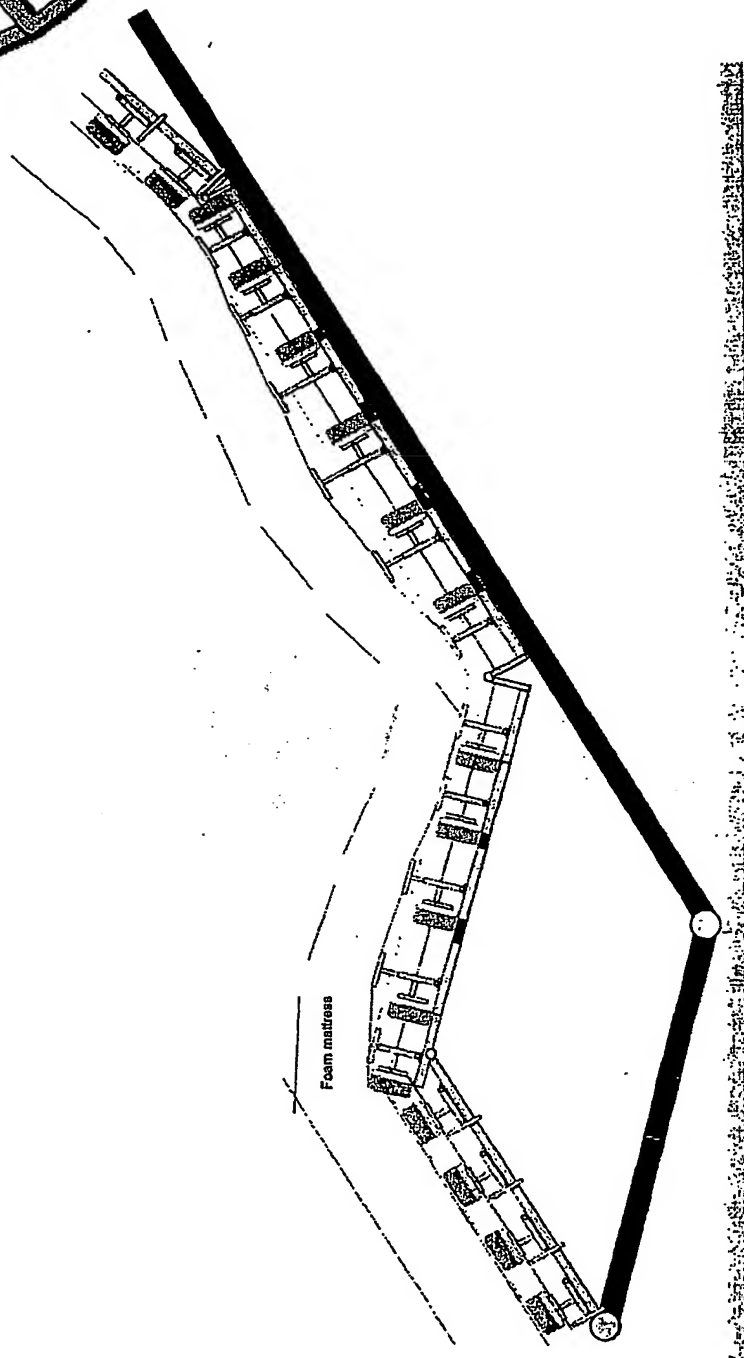
**EZFlex**

**CHAIR Configuration**



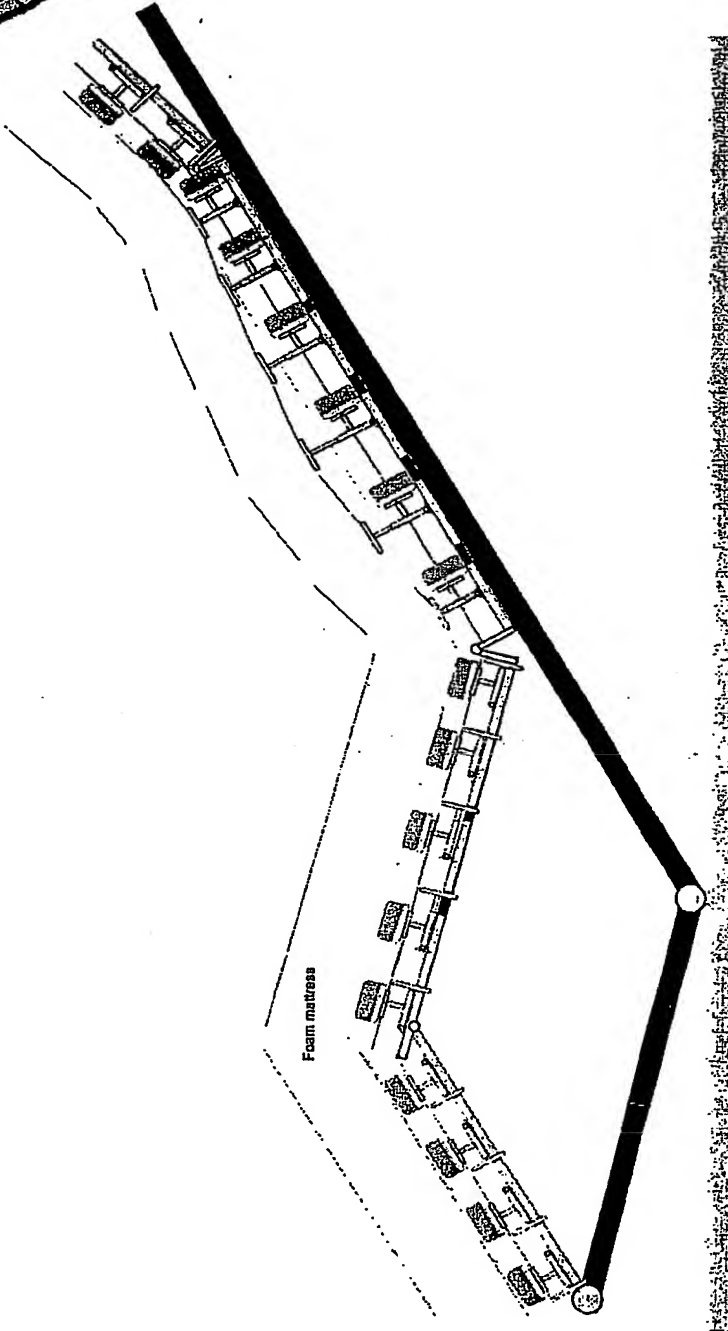
**EZFlex**

RELAX  
Configuration  
"HARD"



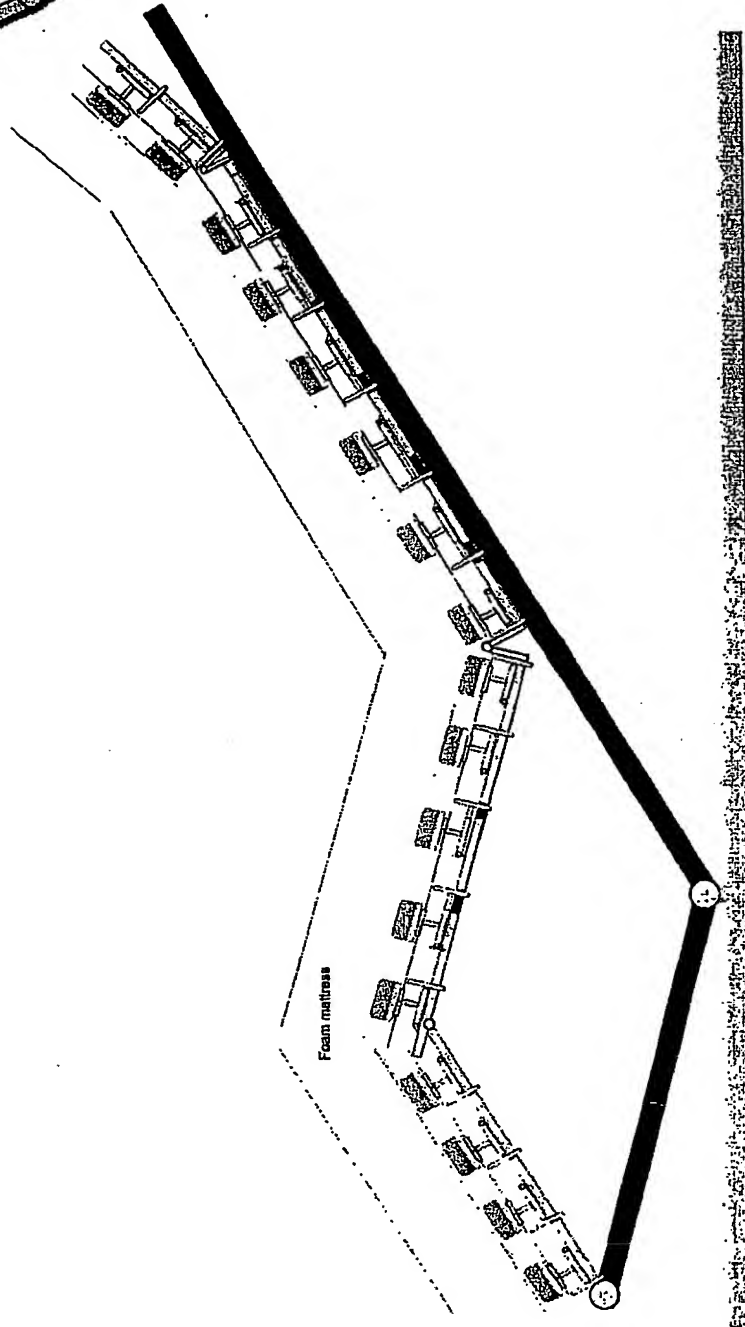
**EZFlex**

RELAX  
Configuration  
"HARD-BACK"



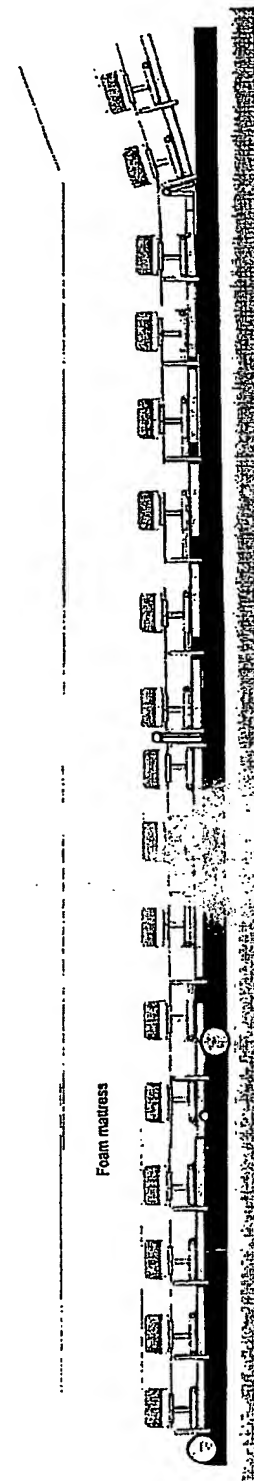
**EZFlex**

RELAX  
Configuration  
"SOFT"



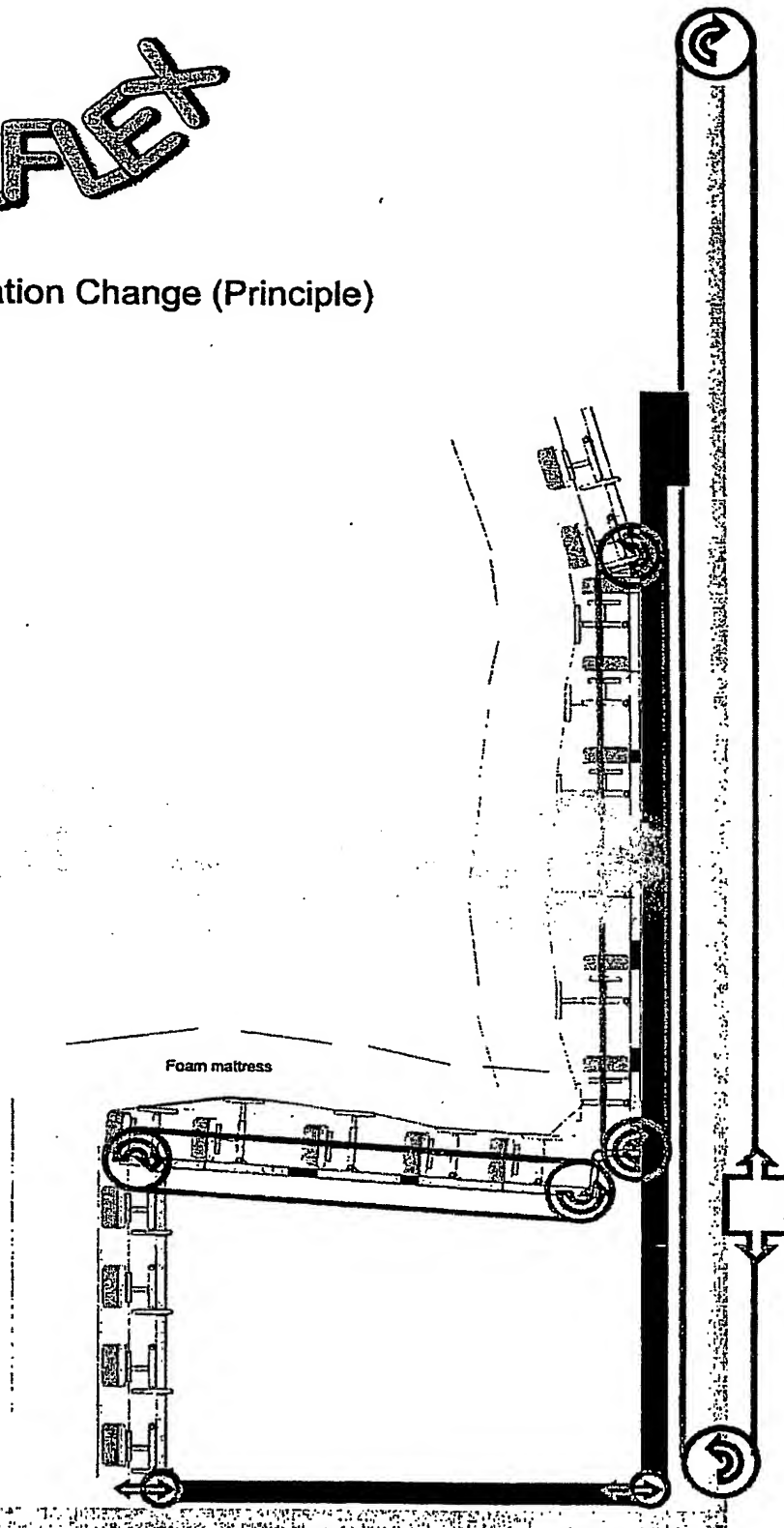


BED (or vertical) Configuration



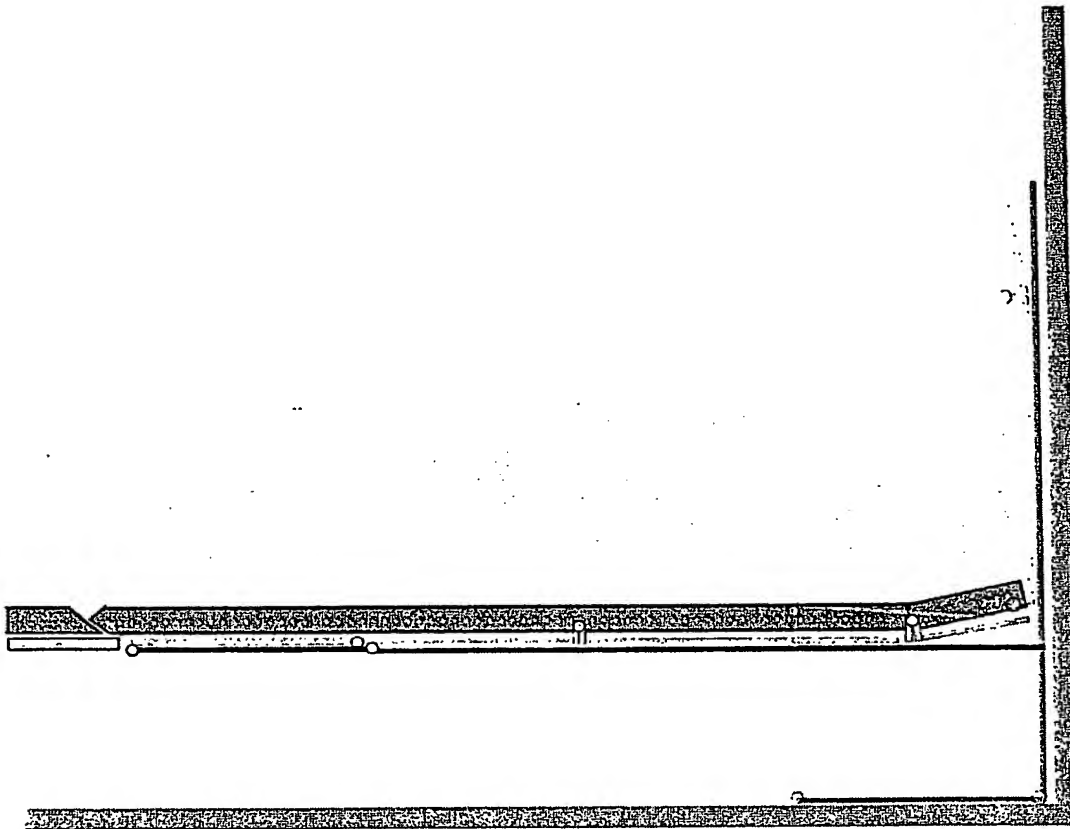
# EZFlex

## Configuration Change (Principle)



**EZFlex**

Bed Configuration (Detail)

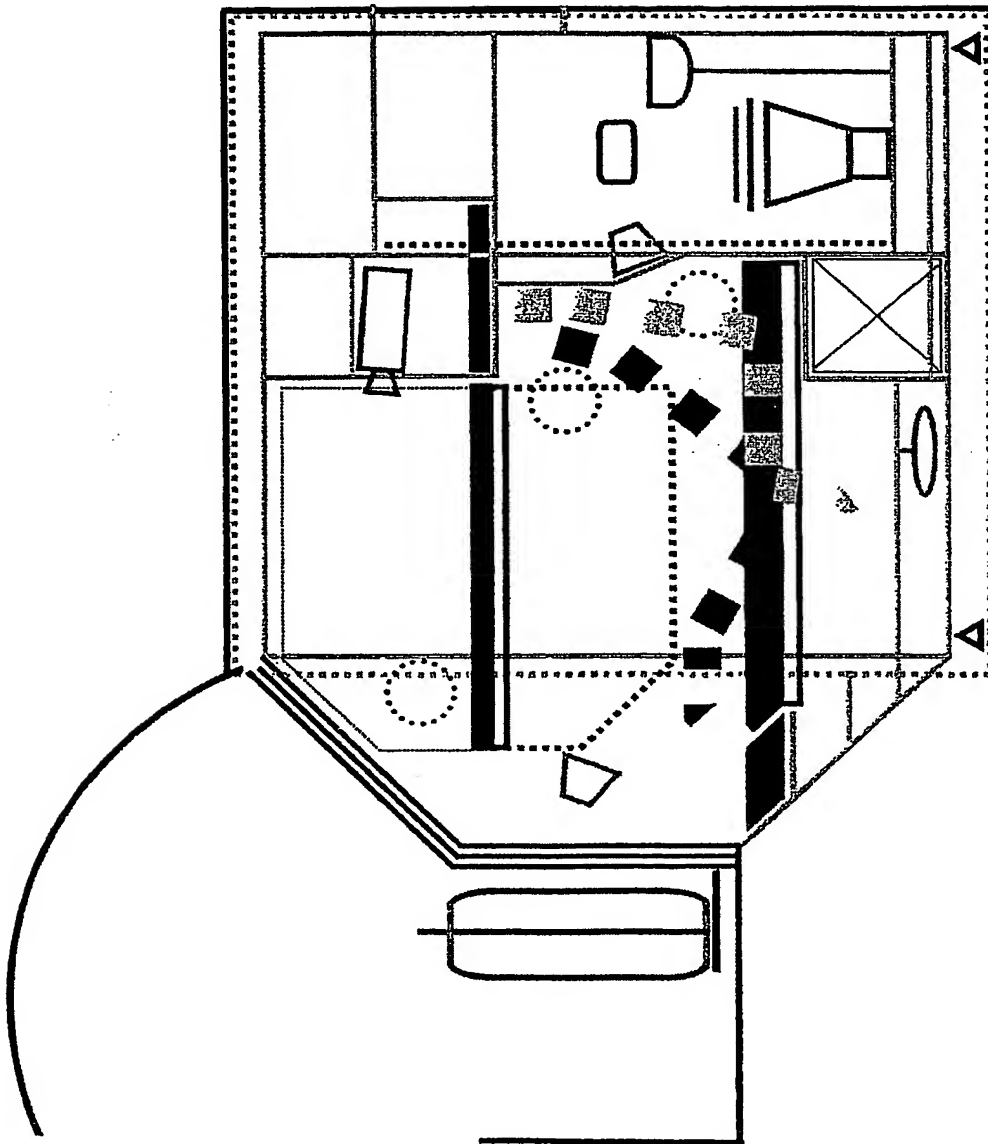




# Baldakin Capsule "Basic Twin"

Side View / Section

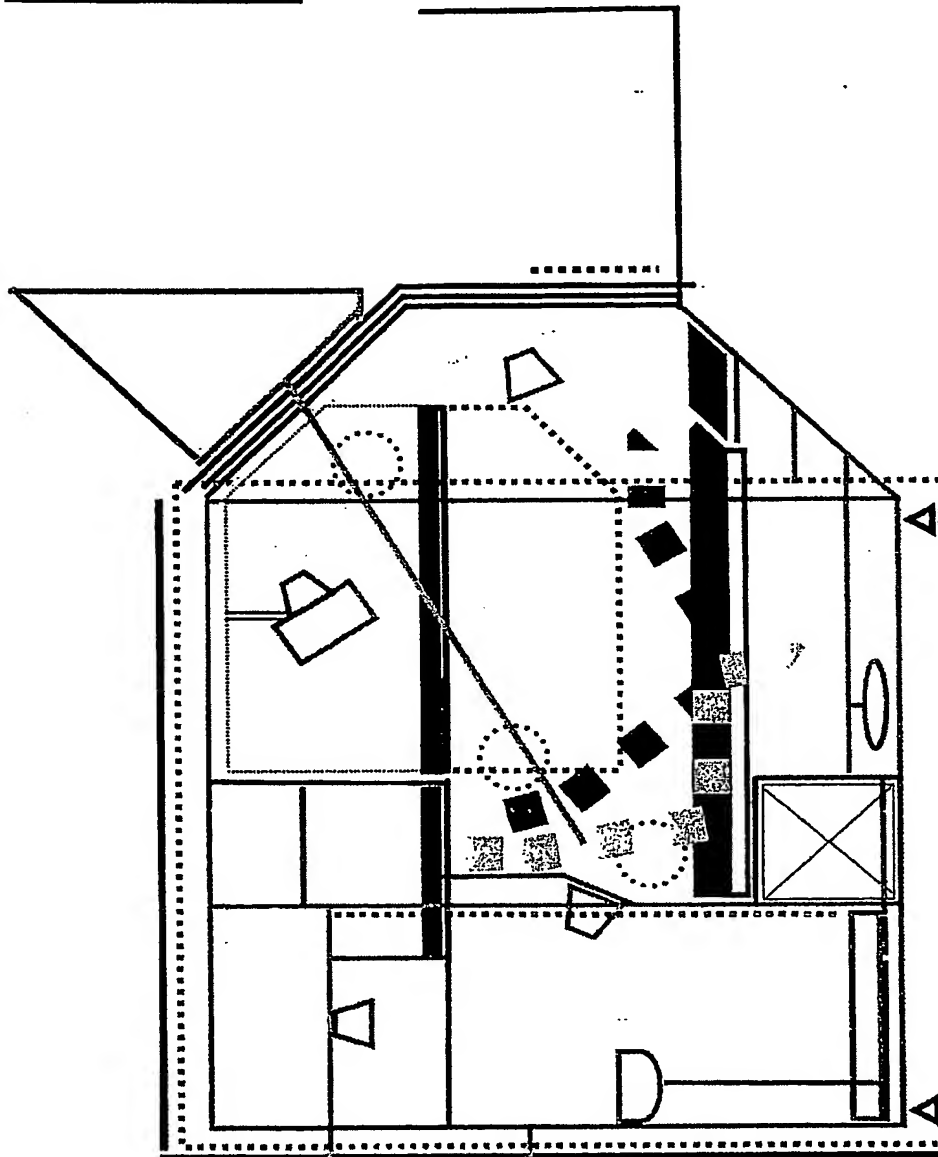
1 meter



# Baldakin Capsule "Basic Twin"

Side View / Section (Opposite)

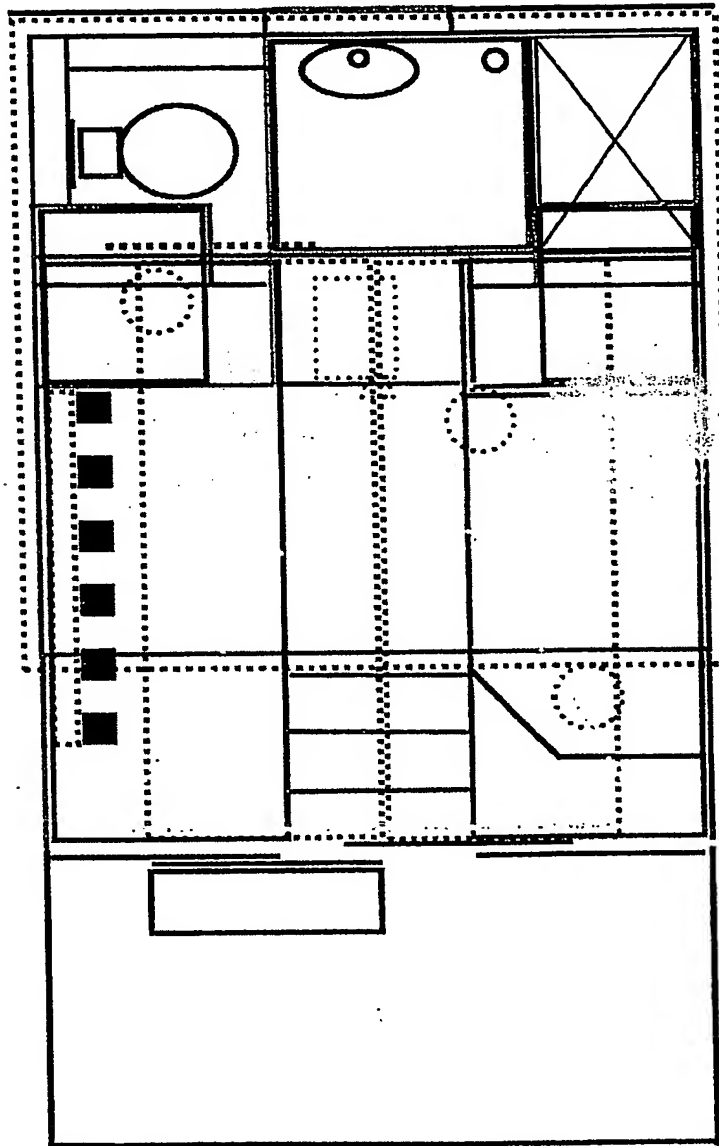
1 meter



# Baldakin Capsule "Basic Twin"

Top View / Section

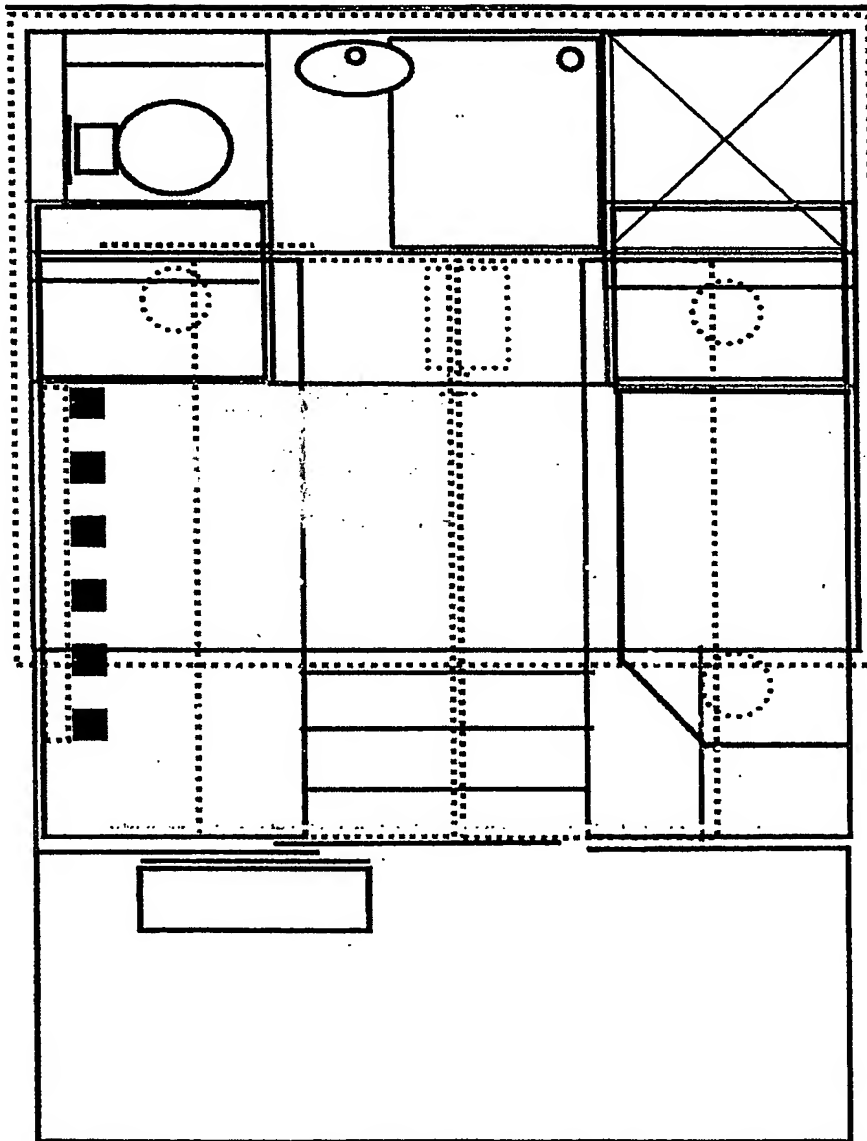
1 meter



# Baldakin Capsule "DeLuxe Twin"

Top View / Section

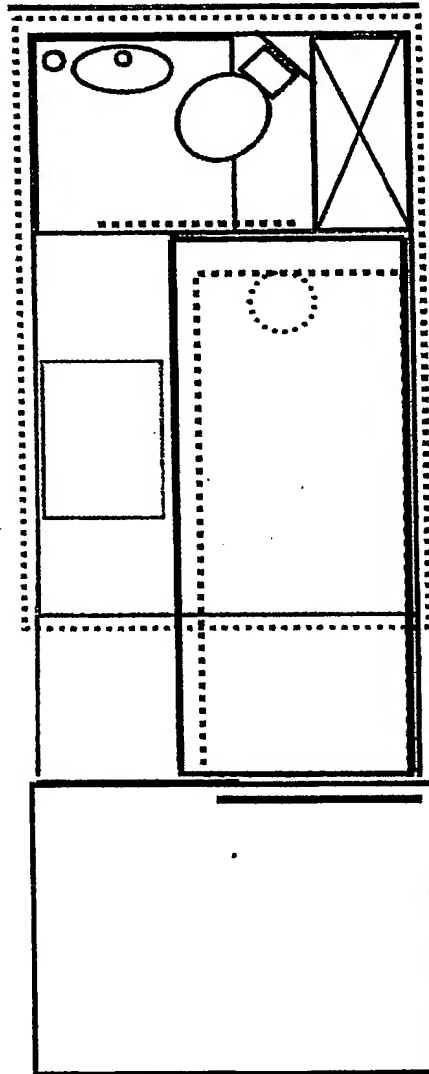
1 meter



# Baldakin Capsule "Basic Single"

Top View / Section

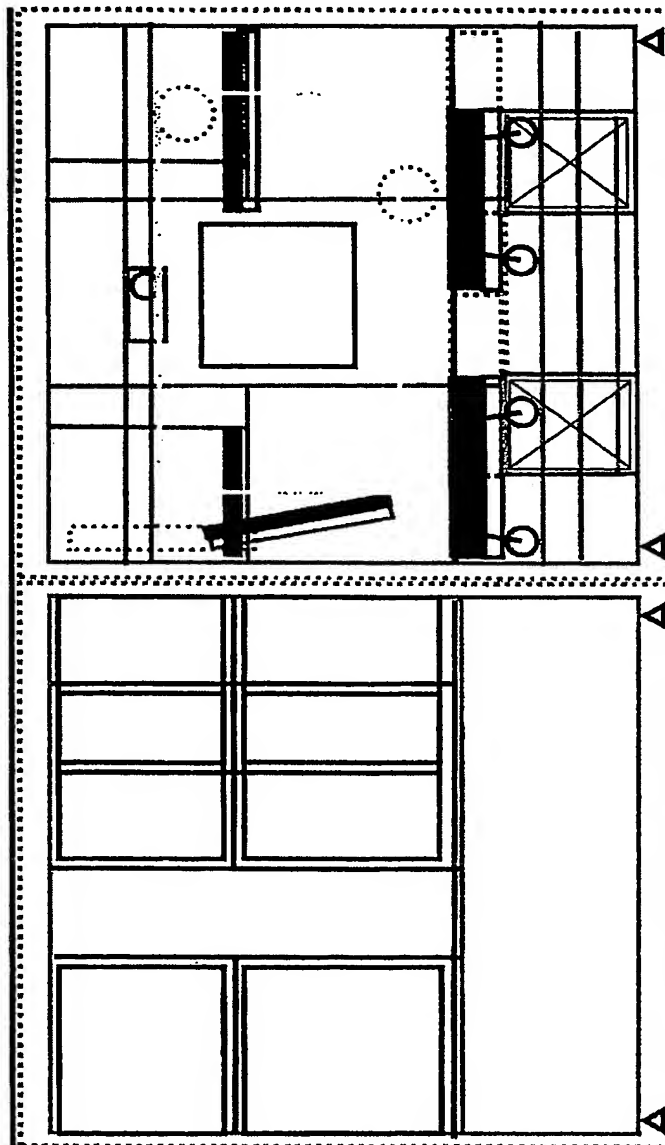
1 meter



# Baldakin Capsule "Basic Twin"

Front View / Section

1 meter

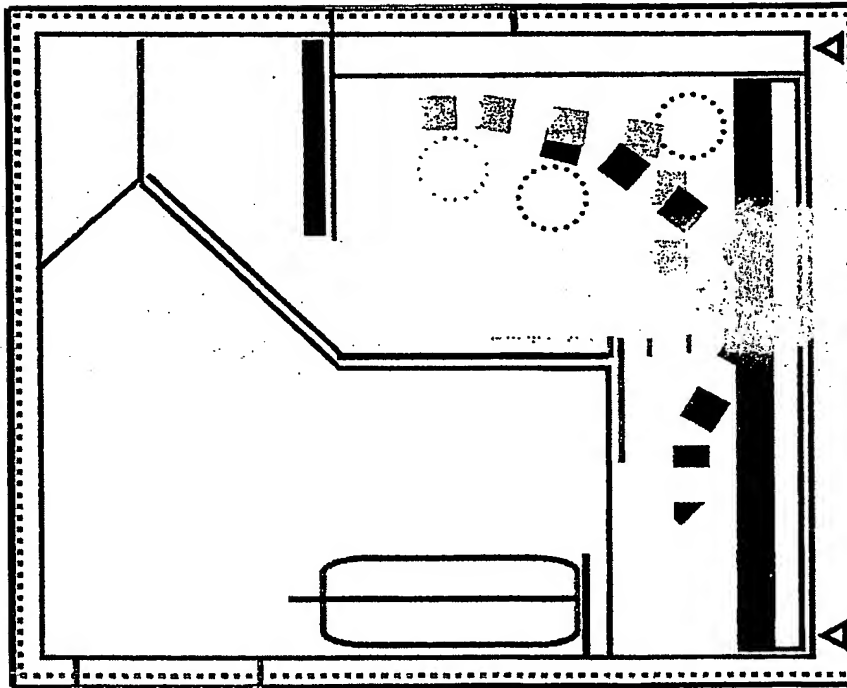


# Baldakin Capsule "Compact"

WPB

Side View / Section

1 meter

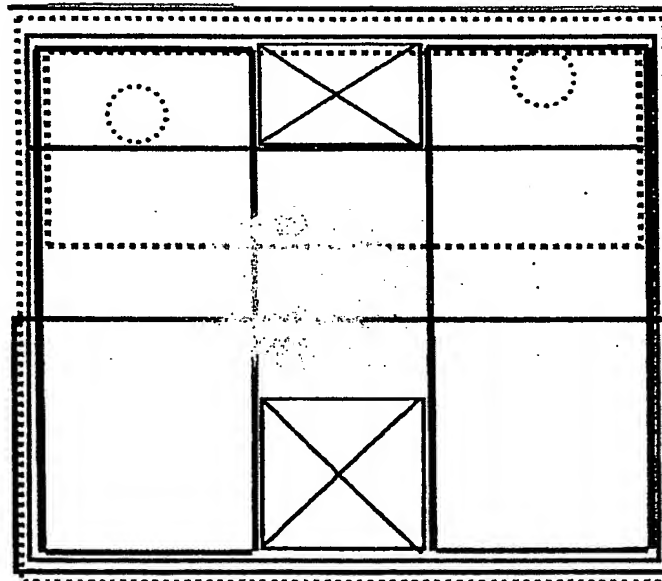


# Baldakin Capsule "Compact Twin"

WPB

Top View / Section

1 meter



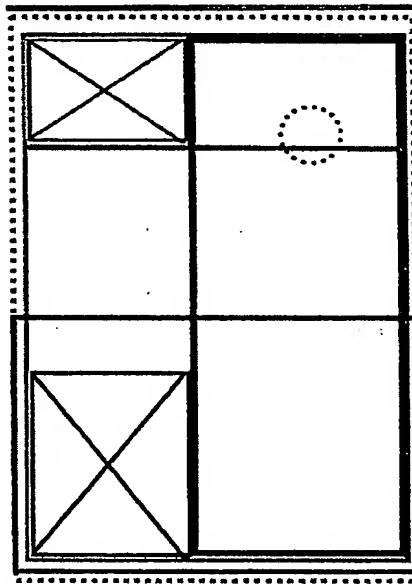


# Baldakin Capsule "Compact Single"

WPB

Top View / Section

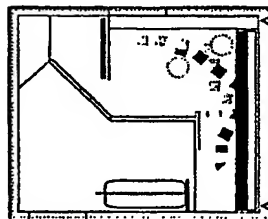
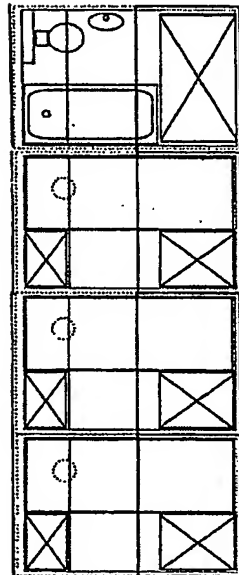
1 meter



# Baldakin 20' Module

"Compact" Capsules + Shared Bathroom  
Top & Side Sections

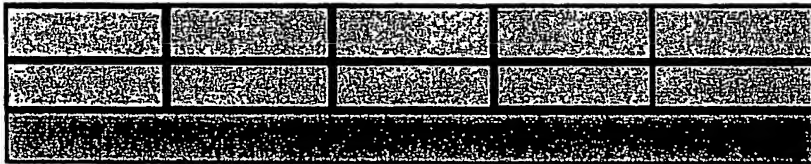
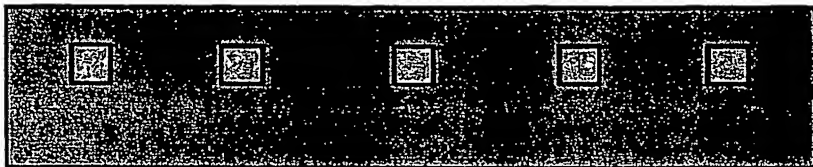
1 meter



# Baldakin 40' Module

"Basic Double" Capsules  
Back, Front & Side views

1 meter

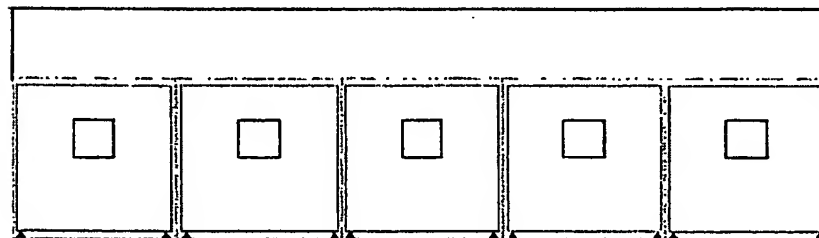
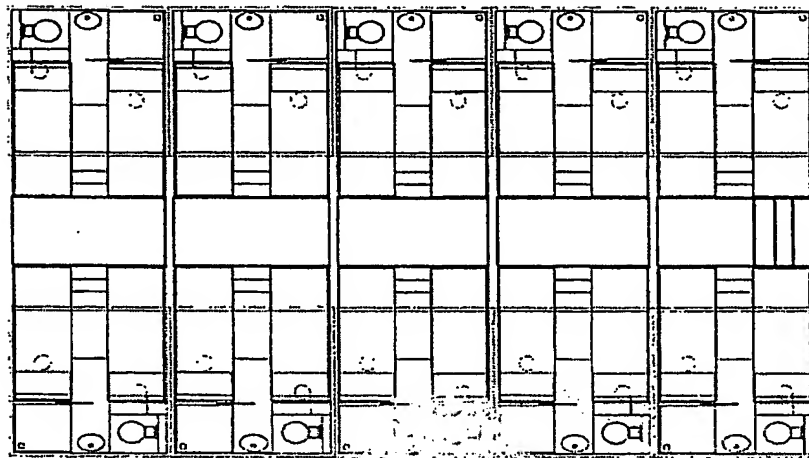


# Baldakin Face-to-face Combination

## "Basic Twin" Capsules

### Top & Side View

1 meter

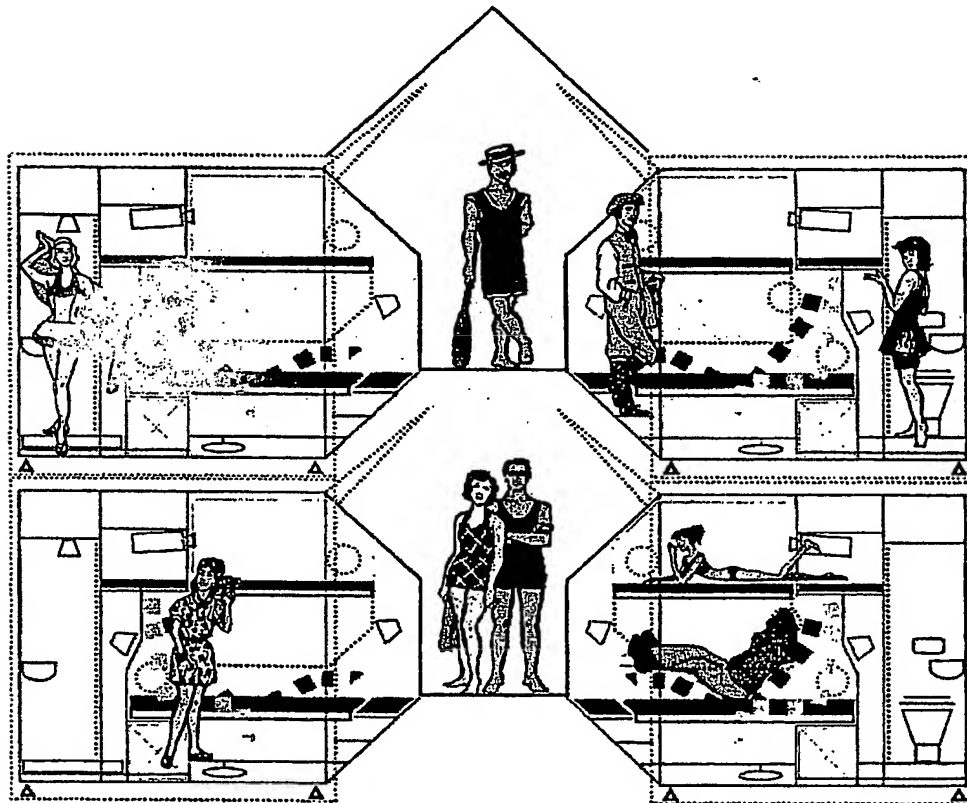


# Baldakin Face-to-face Combination

## "Basic Twin" Capsules on 2 levels

### Cross Section

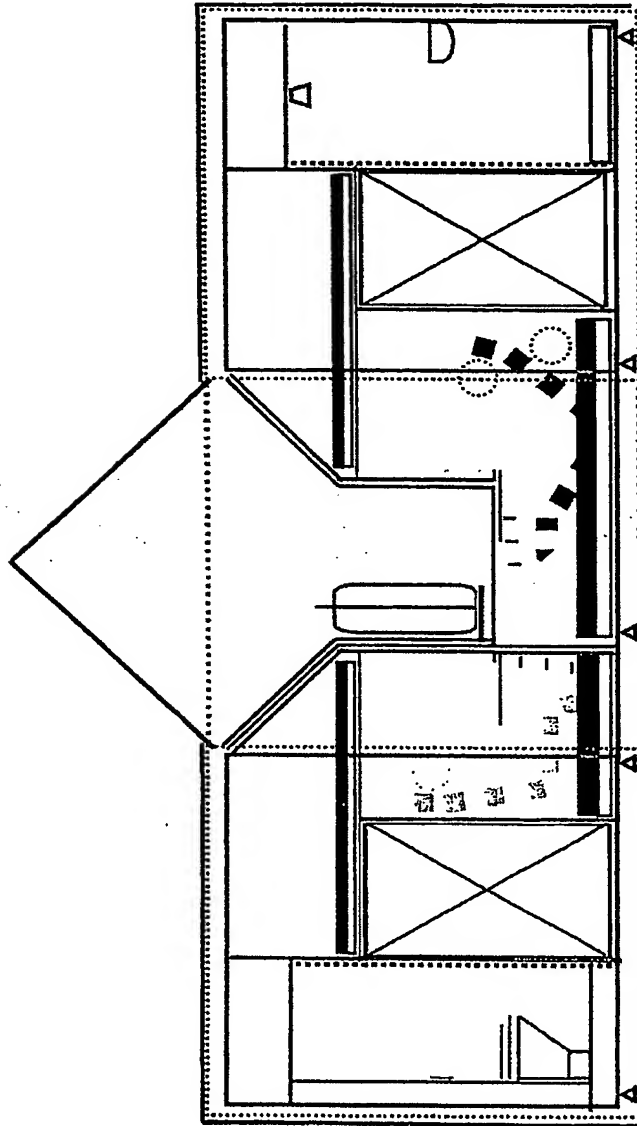
1 meter



# Baldakin Face-to-face Combination

"Compact Single" Capsules  
Side View / Section

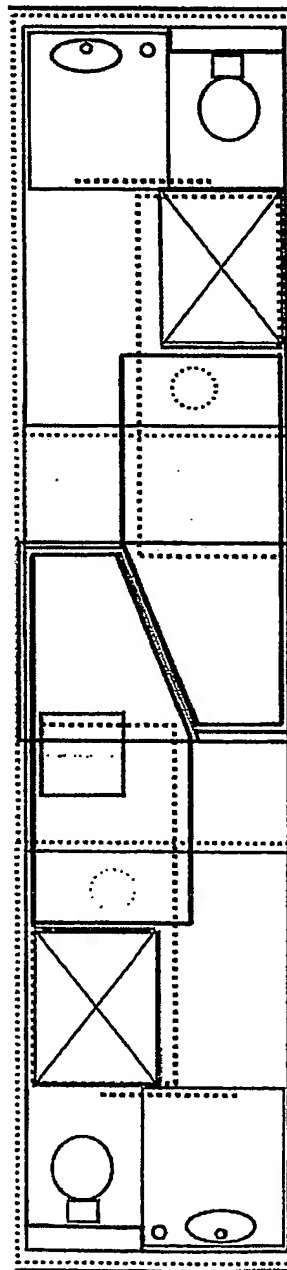
1 meter



# Baldakin Face-to-face Combination

"Compact Single" Capsules  
Top View / Section

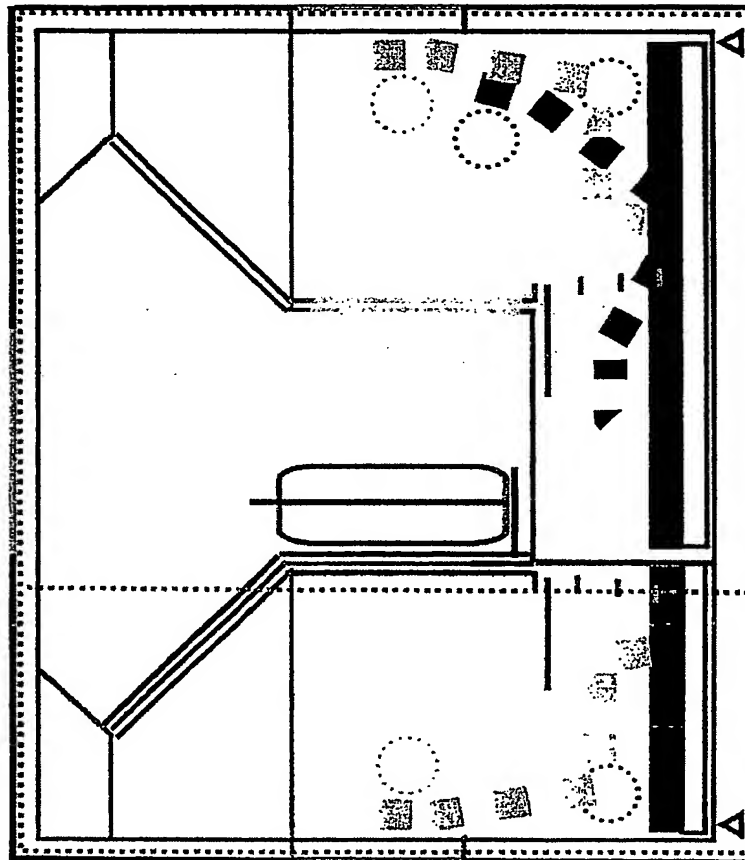
1 meter



# Baldakin Face-to-face Combination

Compact Single" Capsules WPB  
Side View / Section

1 meter

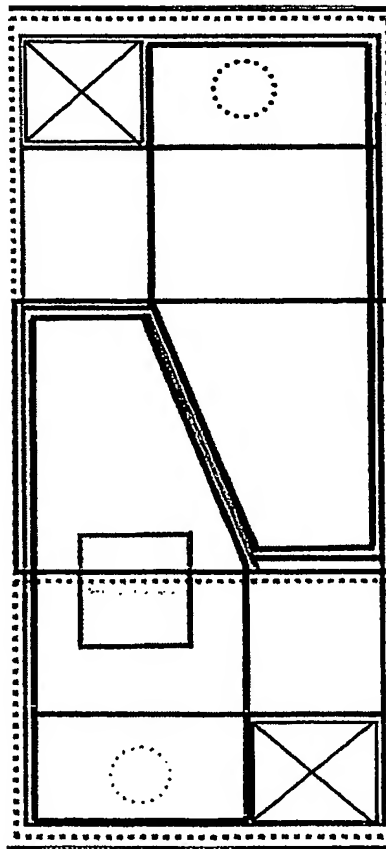




# Baldakin Face-to-face Combination

"Compact Single" Capsules WPB  
Top View / Section

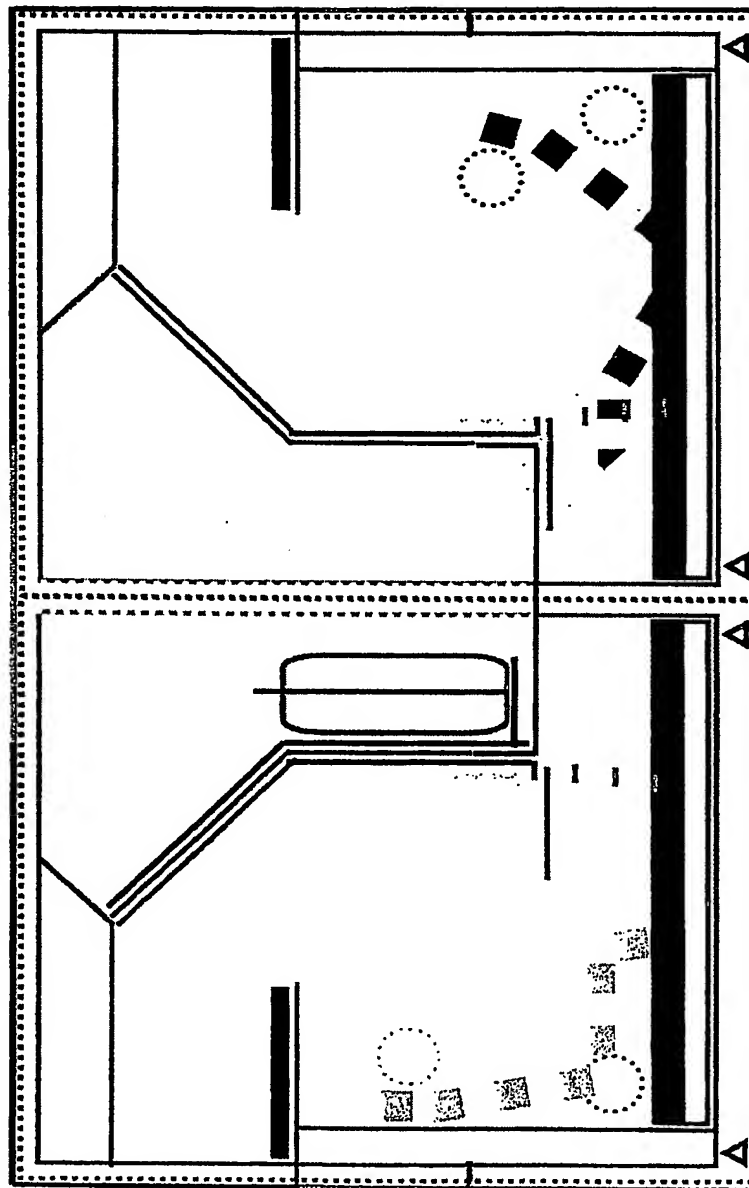
1 meter



# Baldakin Face-to-face Combination

"Compact Twin" Capsules WPB  
Side View / Section

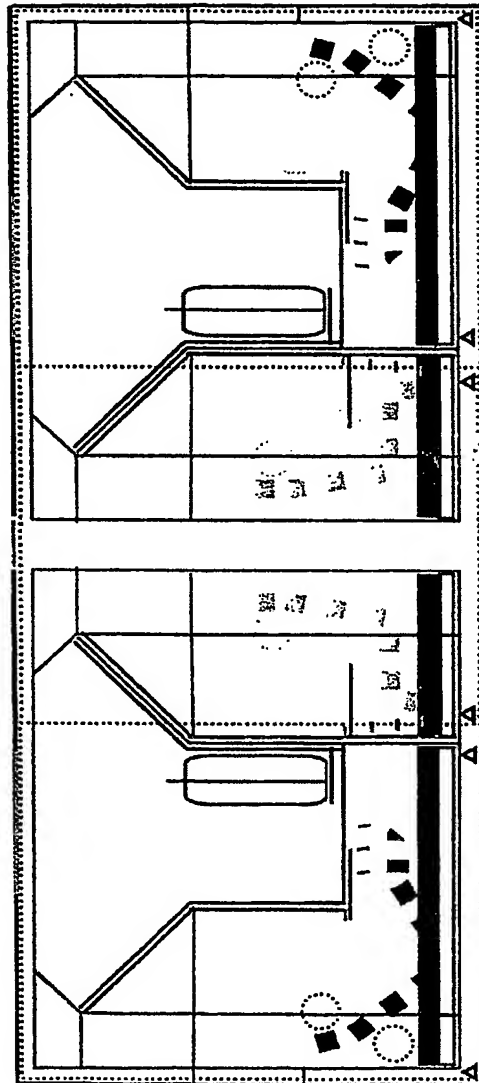
1 meter



# Baldakin Face-to-face Combination

"Compact Single" Capsules WPB (Double)  
Side View / Section

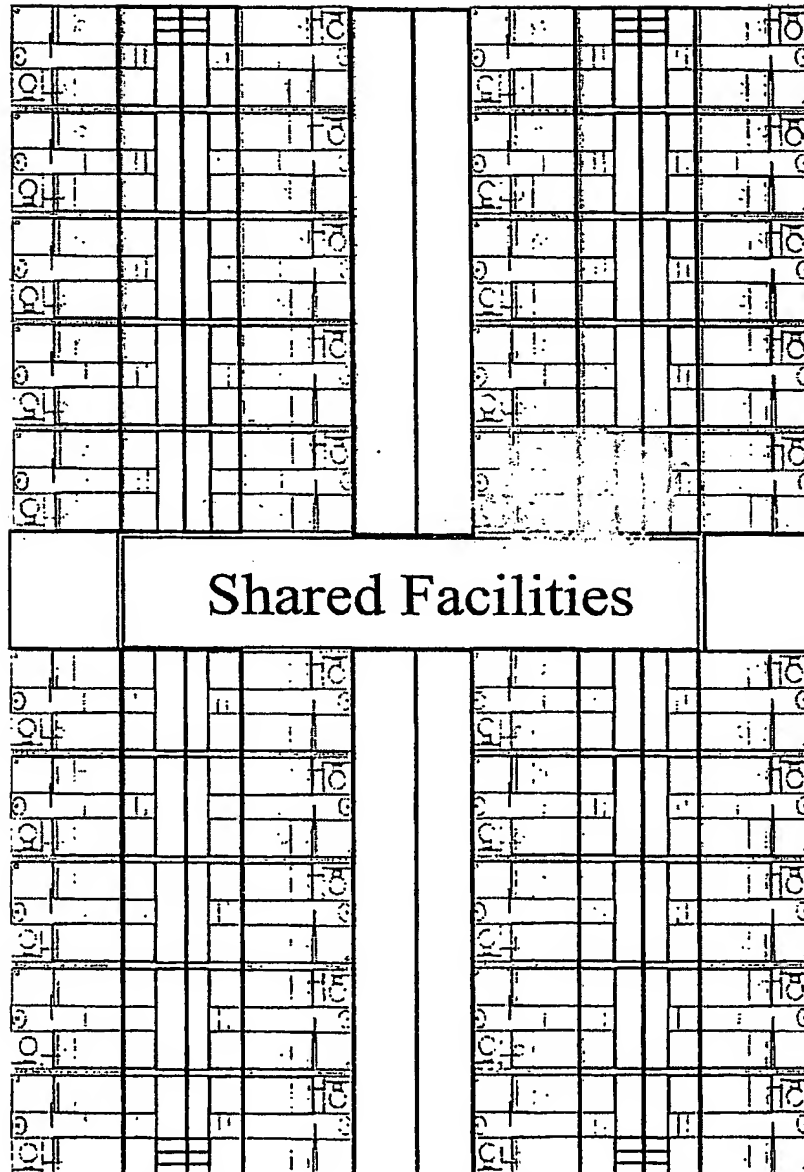
1 meter



# Baldakin Camp

Basic Layout  
Top View

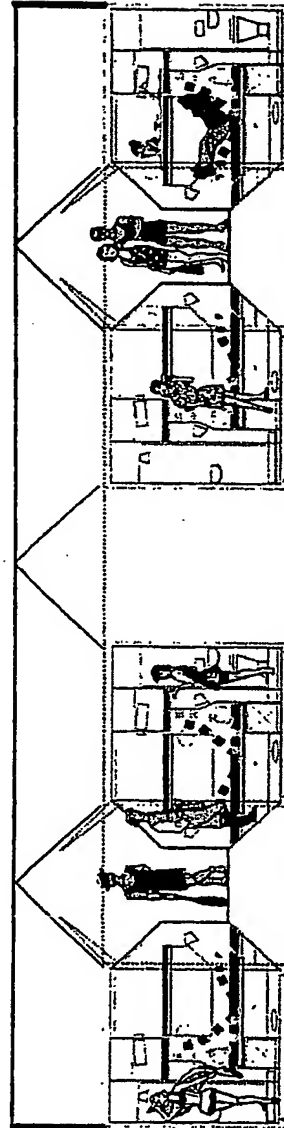
1 meter



# Baldakin Camp

Basic Layout  
Side View

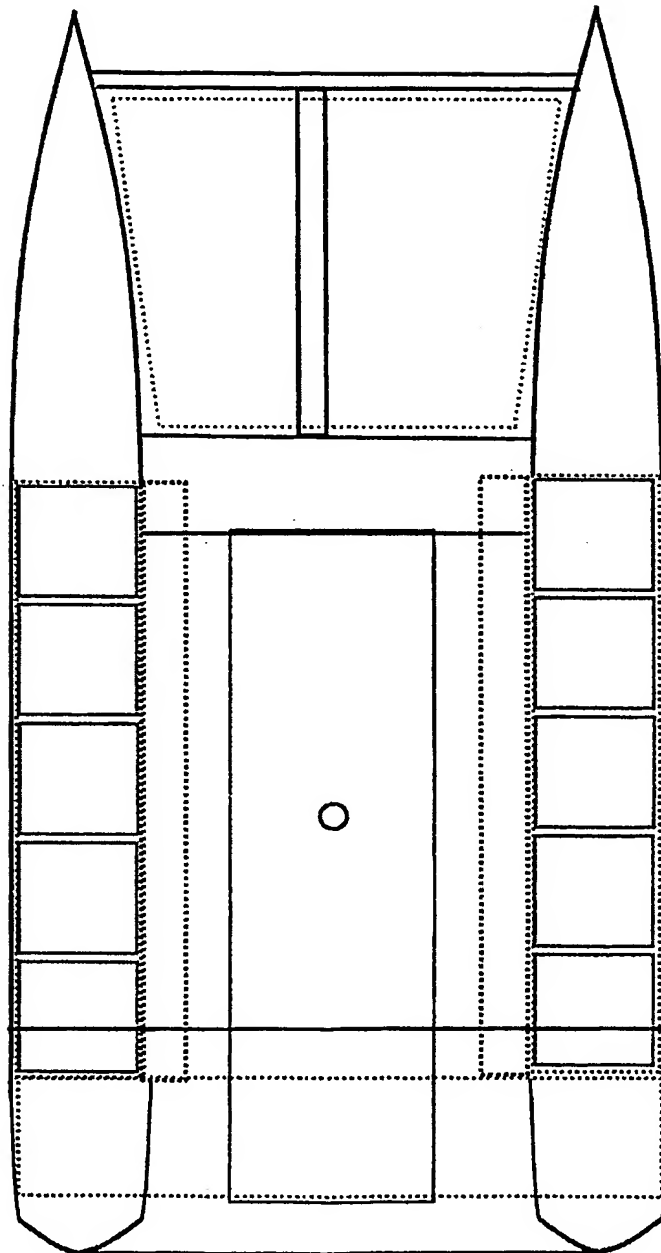
1 meter



# Baldakin Cruiser

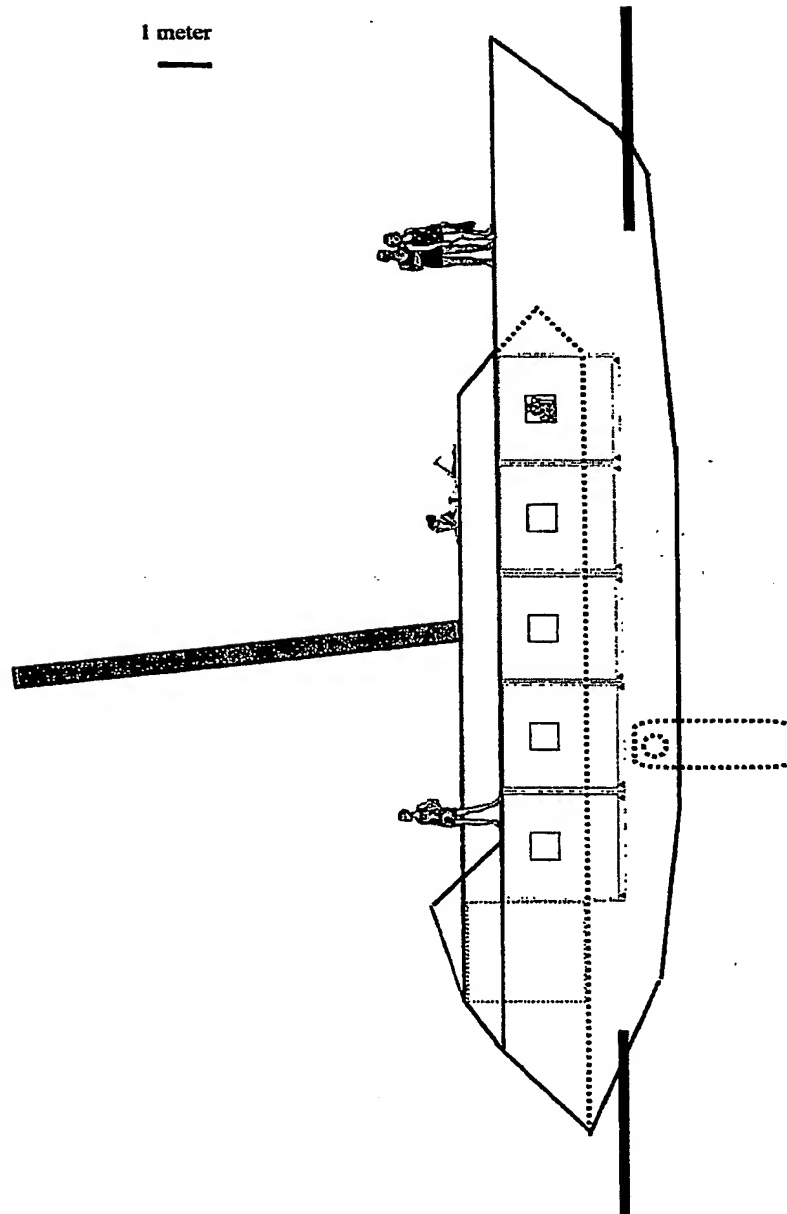
80' Catamaran  
Top View

1 meter



# Baldakin Cruiser

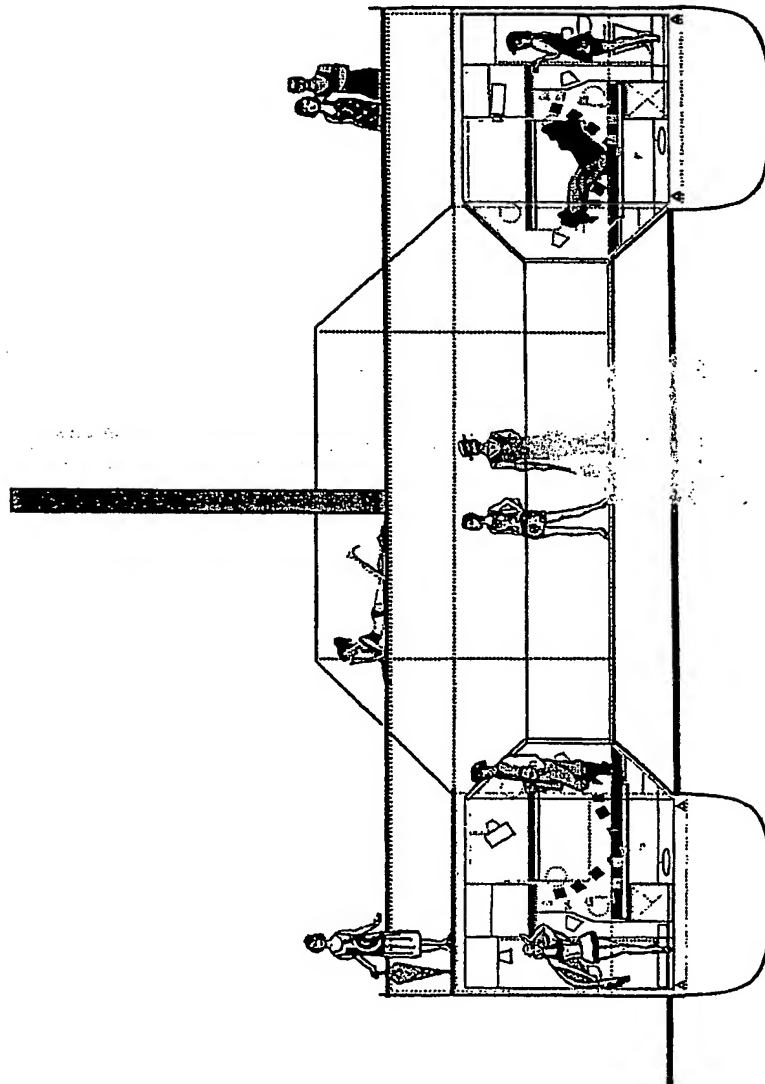
80' Catamaran  
Side View



# Baldakin Cruiser

## 80' Catamarán Cross Section

1 meter

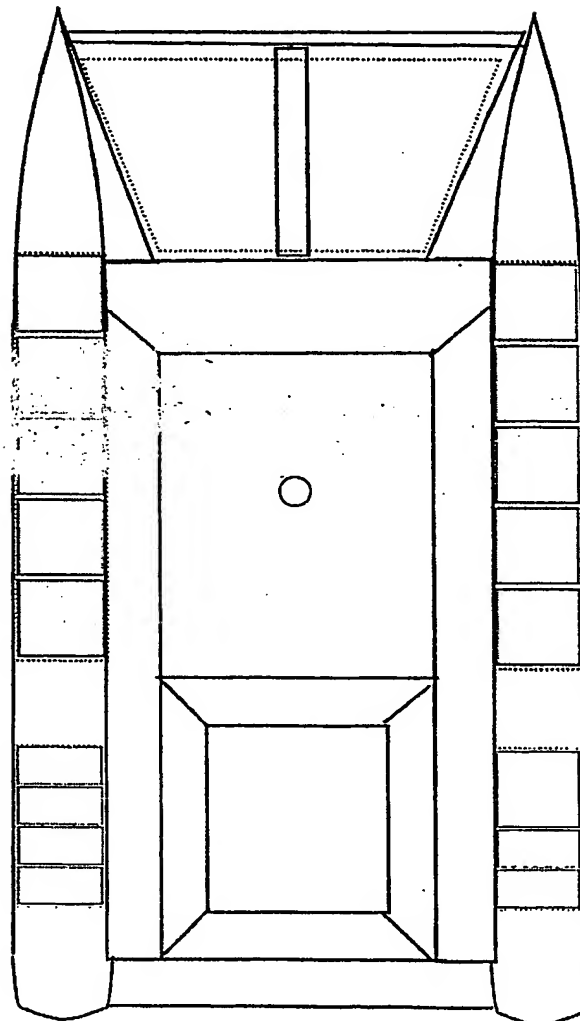




# Baldakin Cruiser

100' Catamaran  
Top View

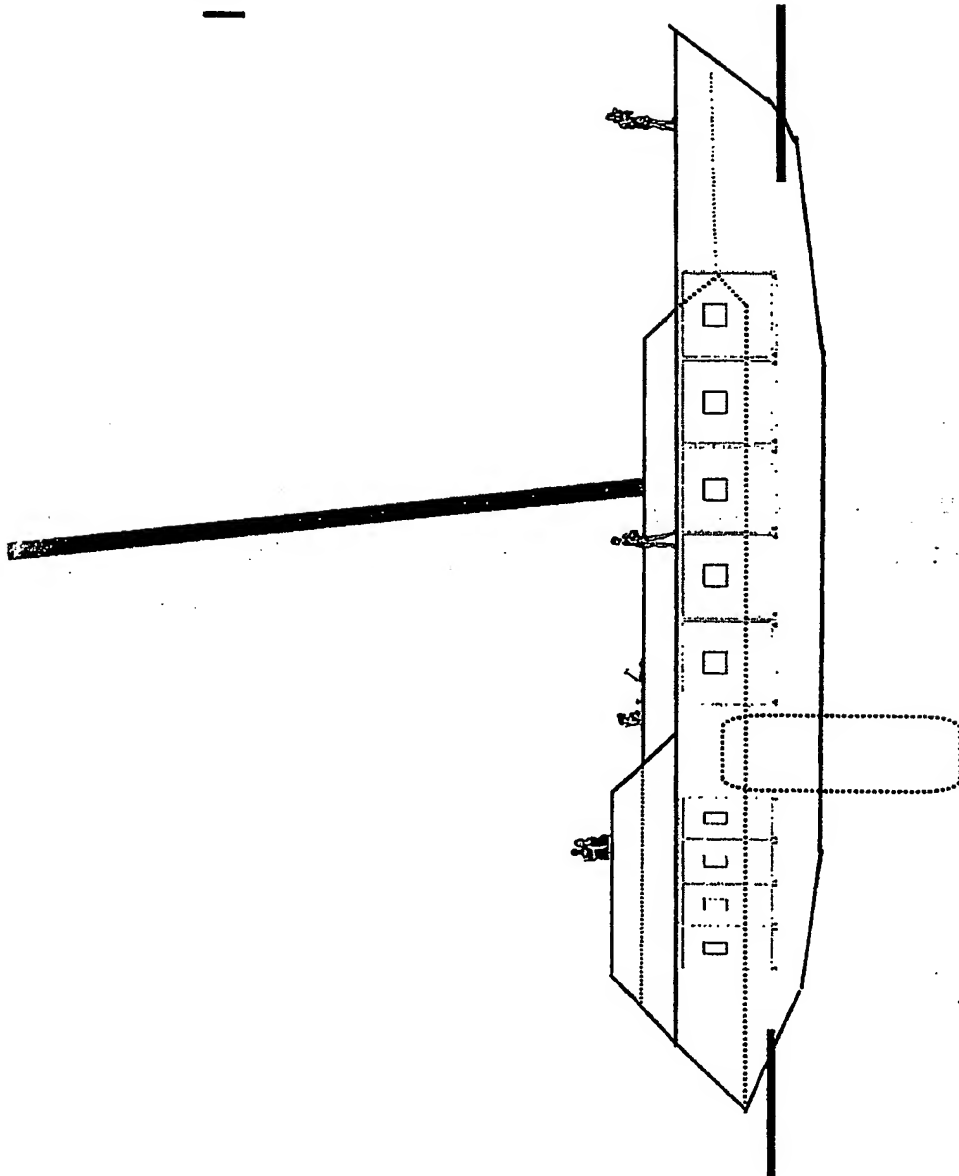
1 meter



# Baldakin Cruiser

100' Catamaran  
Side View

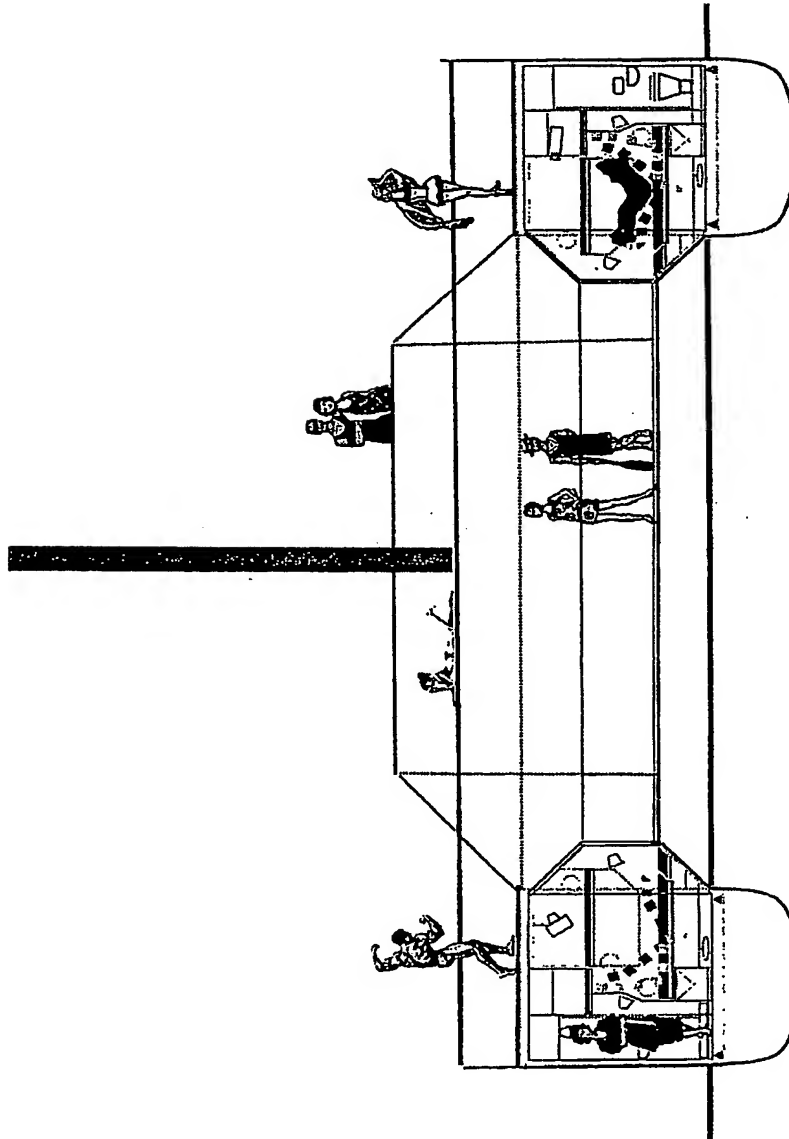
1 meter



# Baldakin Cruiser

100' Catamarán  
Cross Section

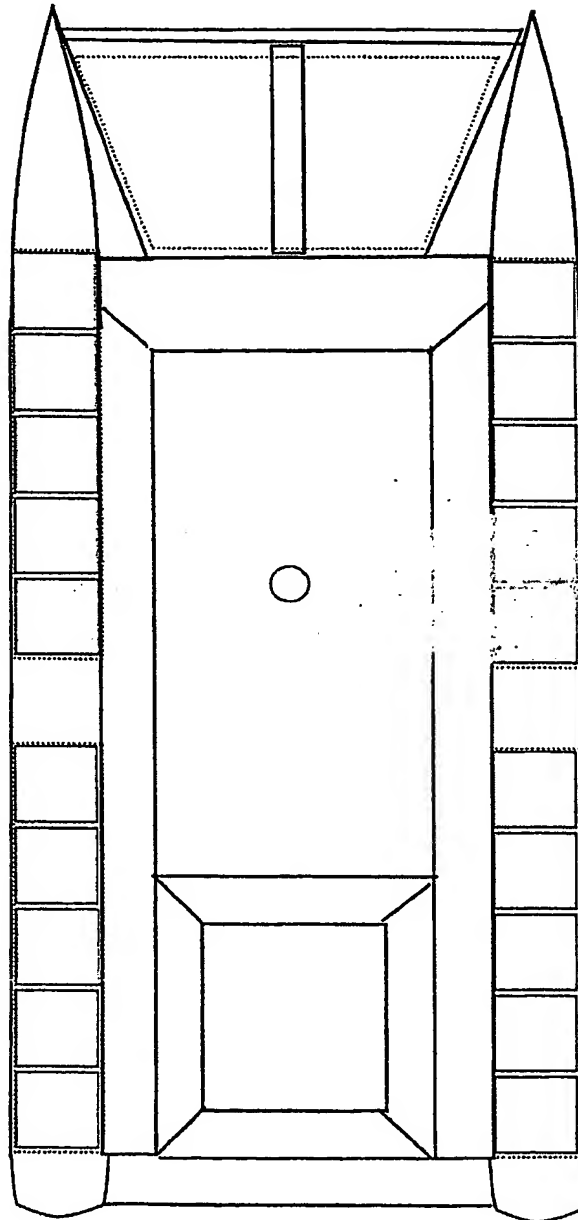
1 meter



# Baldakin Cruiser

120' Catamaran  
Top View

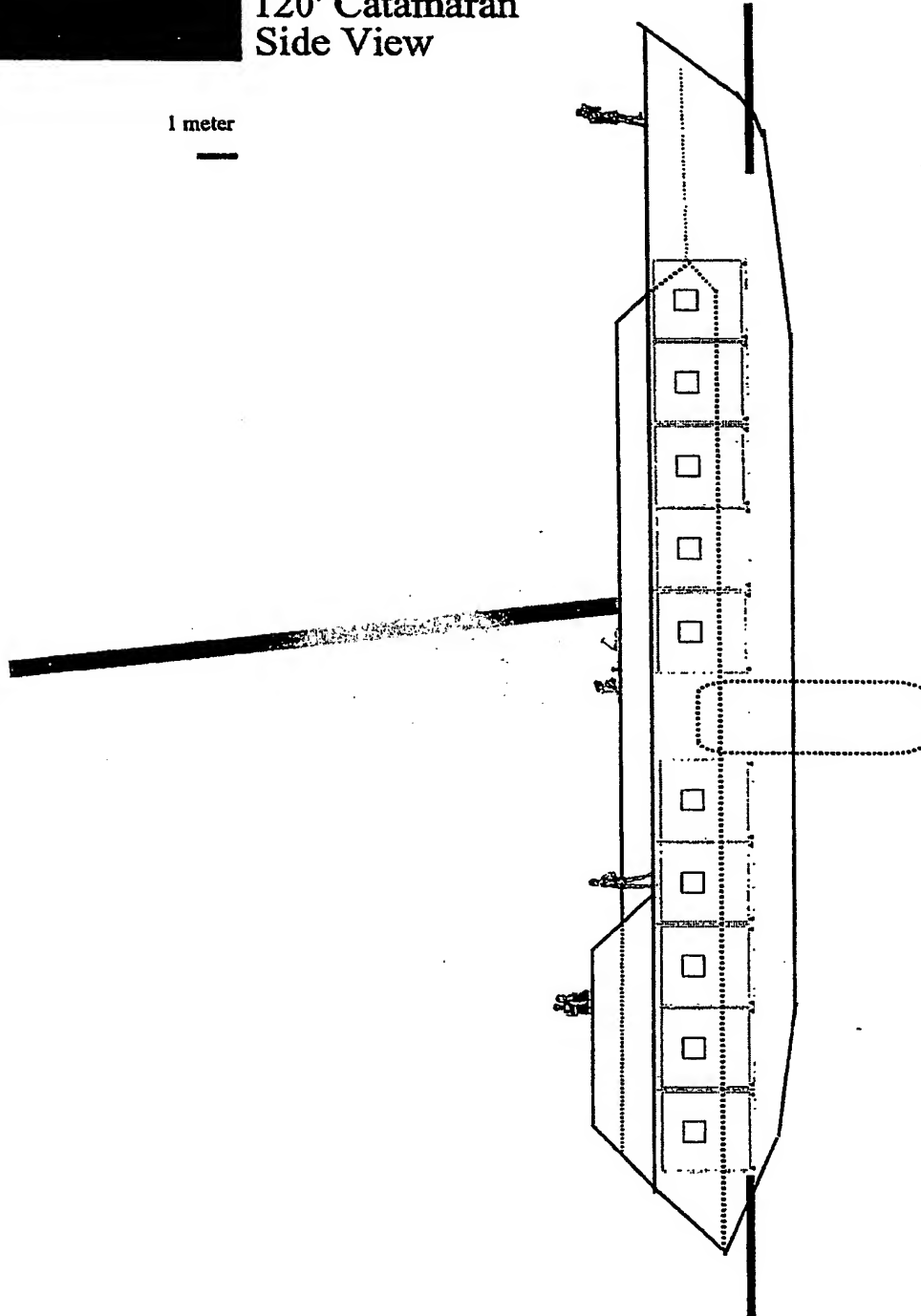
1 meter



# Baldakin Cruiser

120' Catamaran  
Side View

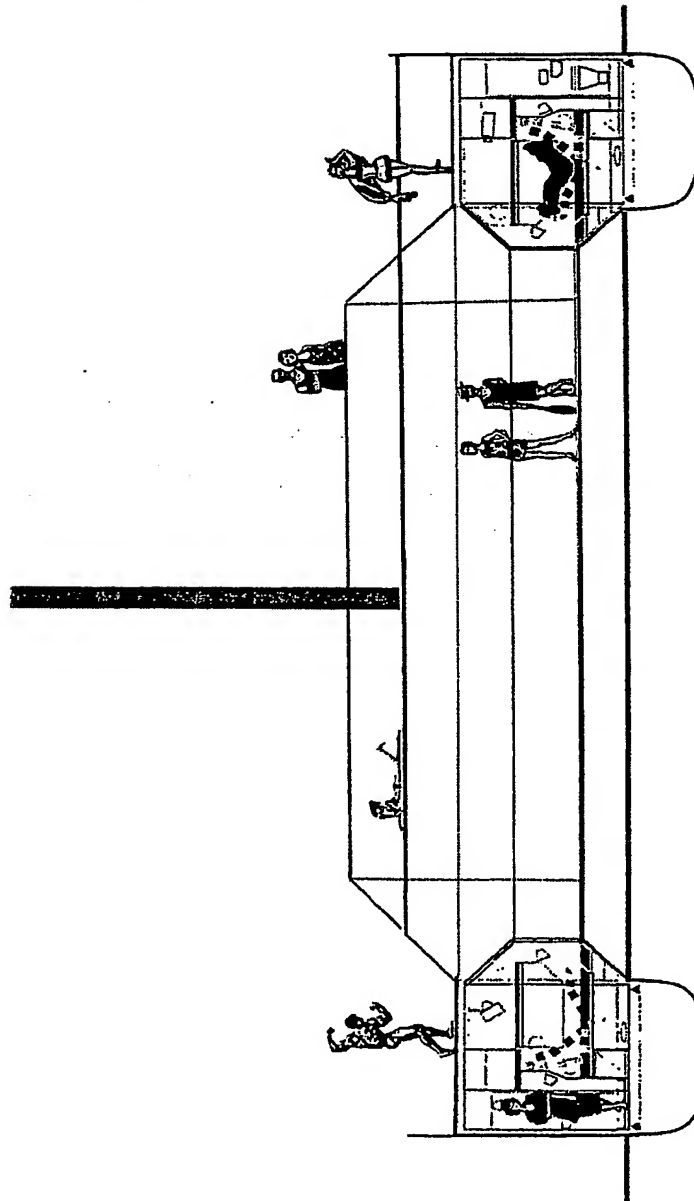
1 meter



# Baldakin Cruiser

120' Catamaran  
Cross Section

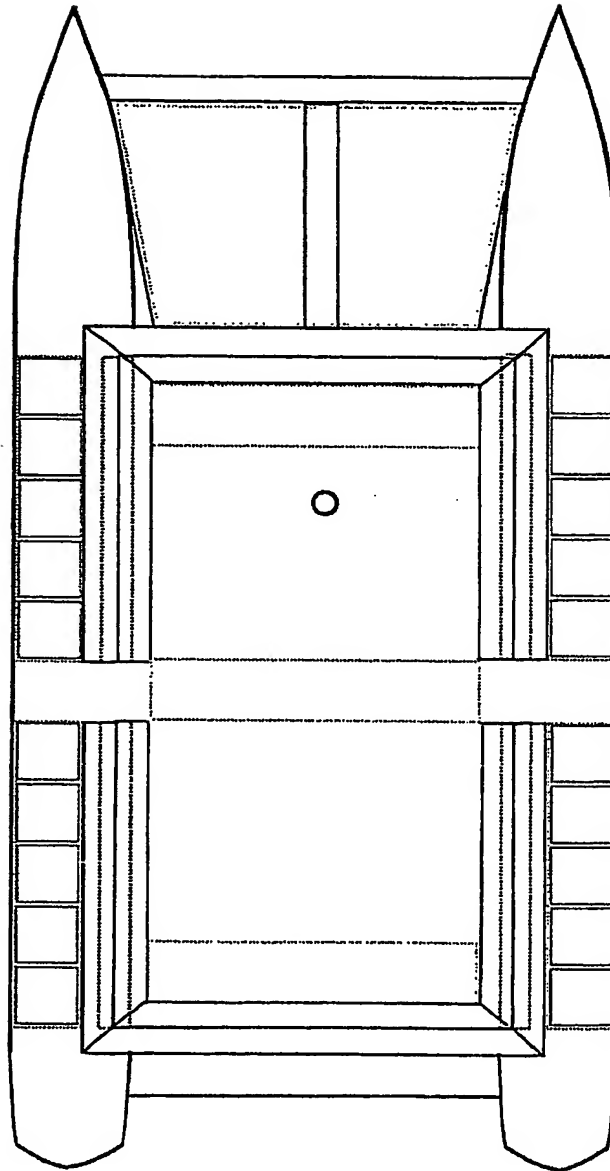
1 meter



# Baldakin Cruiser

160' Catamaran  
Top View

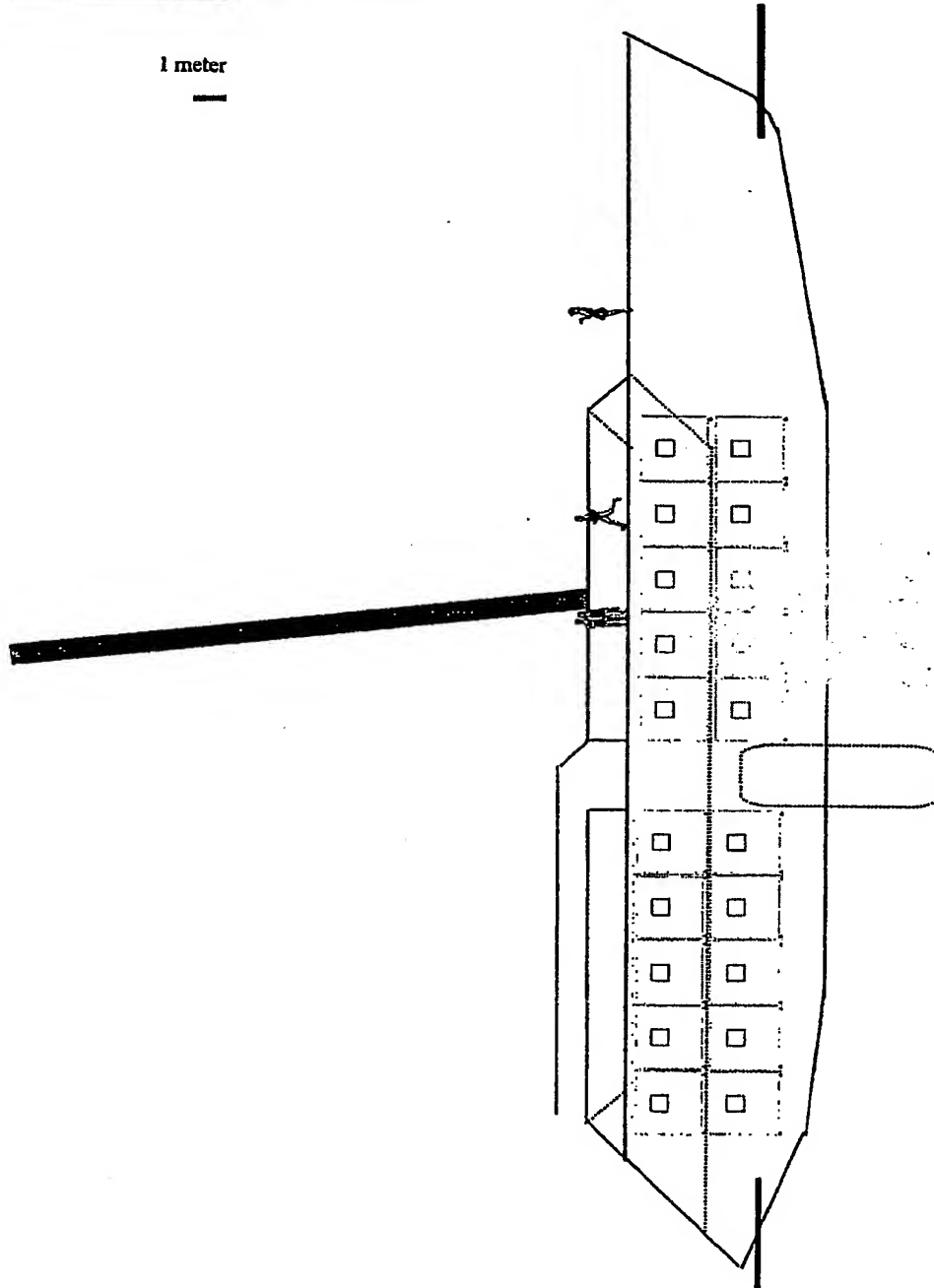
1 meter



# Baldakin Cruiser

160' Catamaran  
Side View

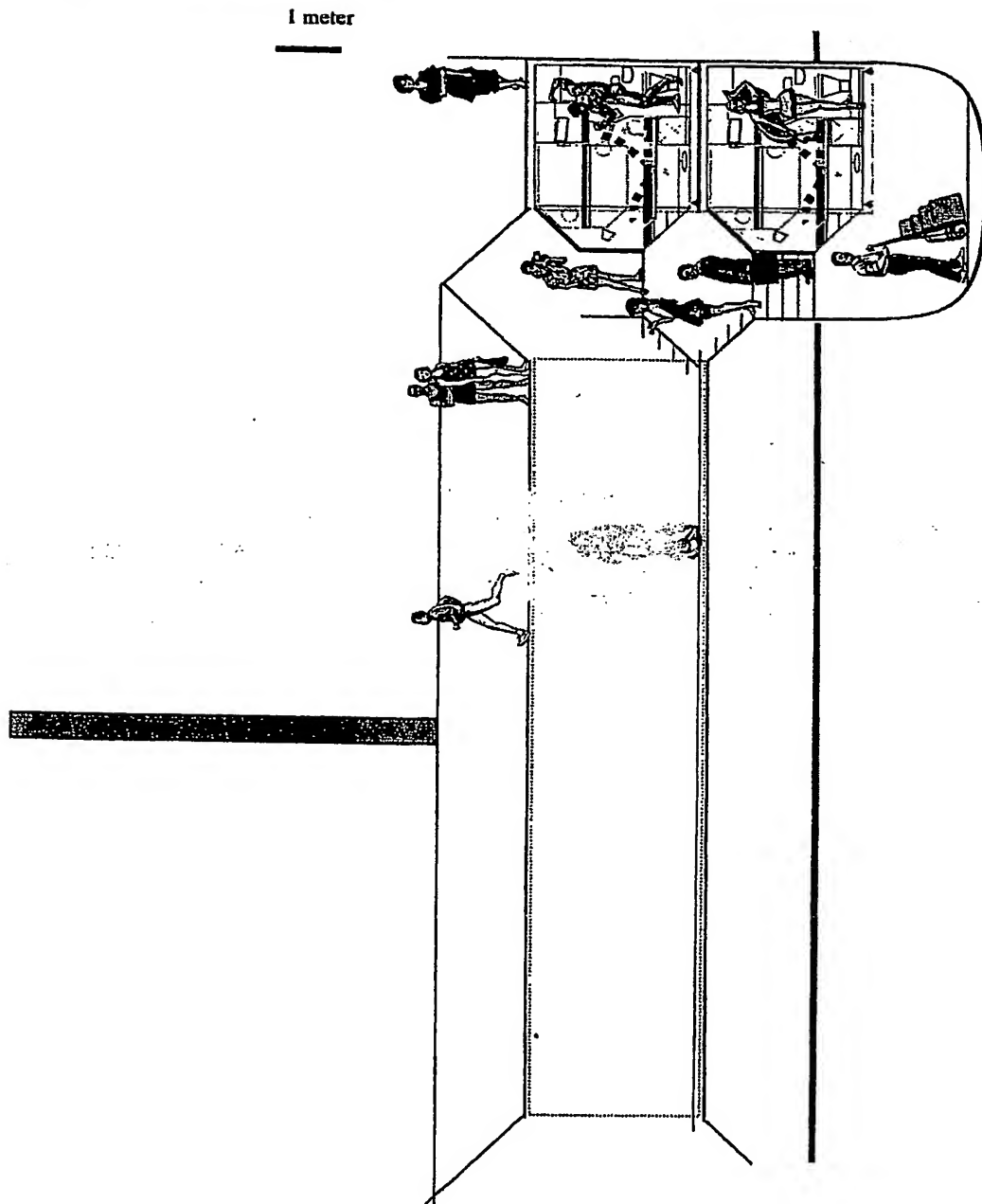
1 meter





# Baldakin Cruiser

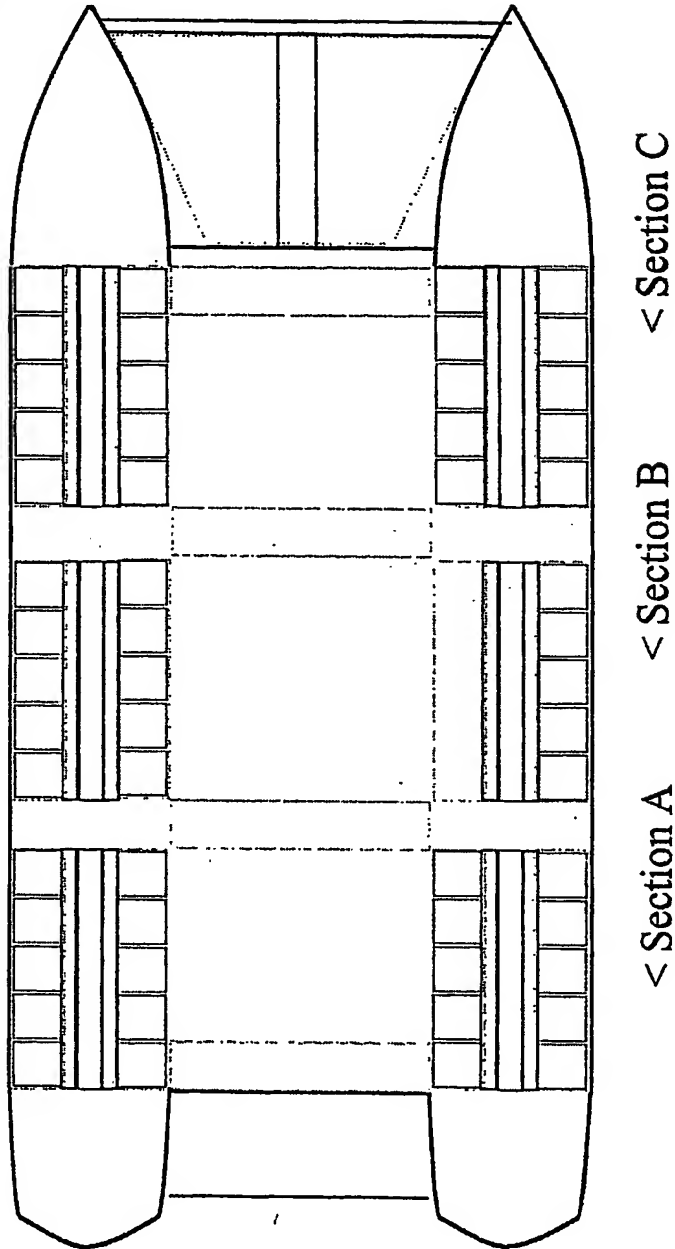
160' Catamaran  
Cross Section



# Baldakin Cruiser

200' Catamaran  
Top View

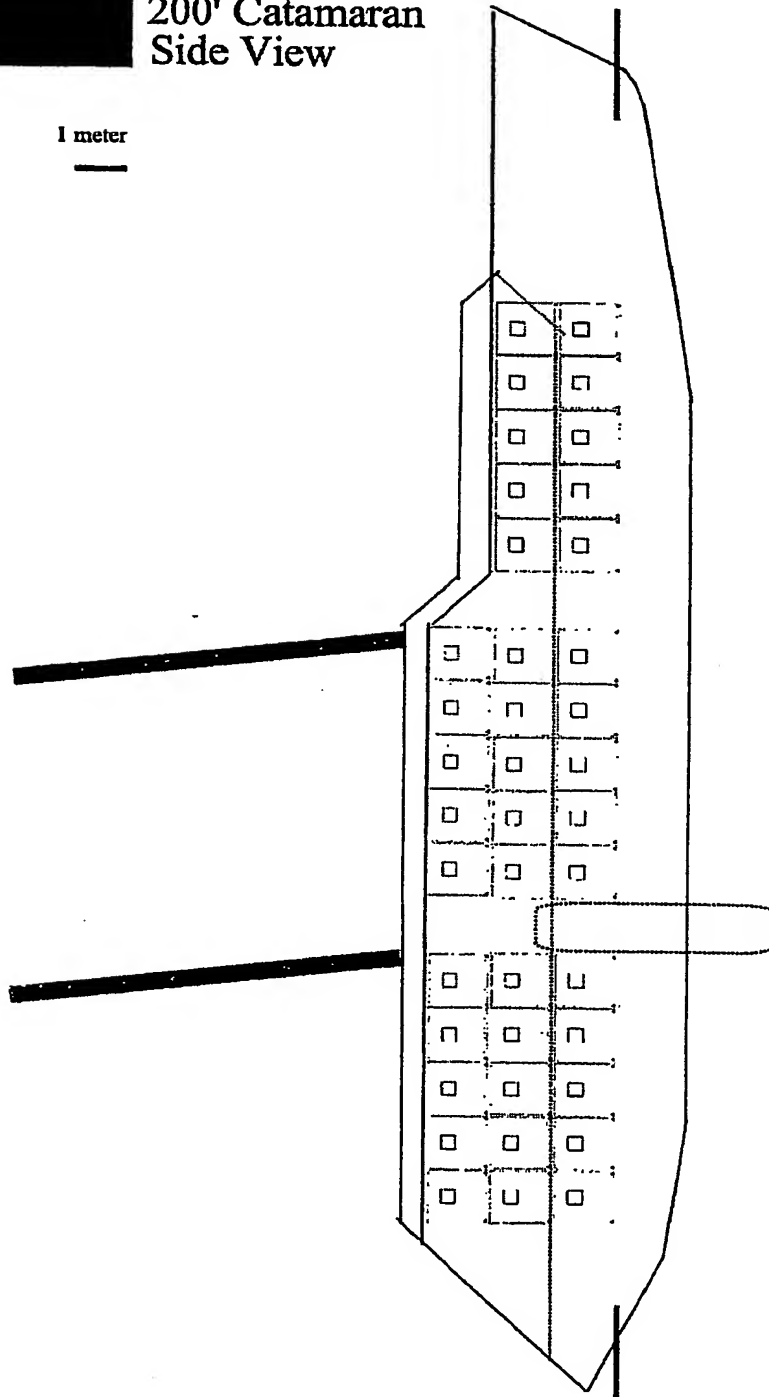
1 meter



# Baldakin Cruiser

200' Catamaran  
Side View

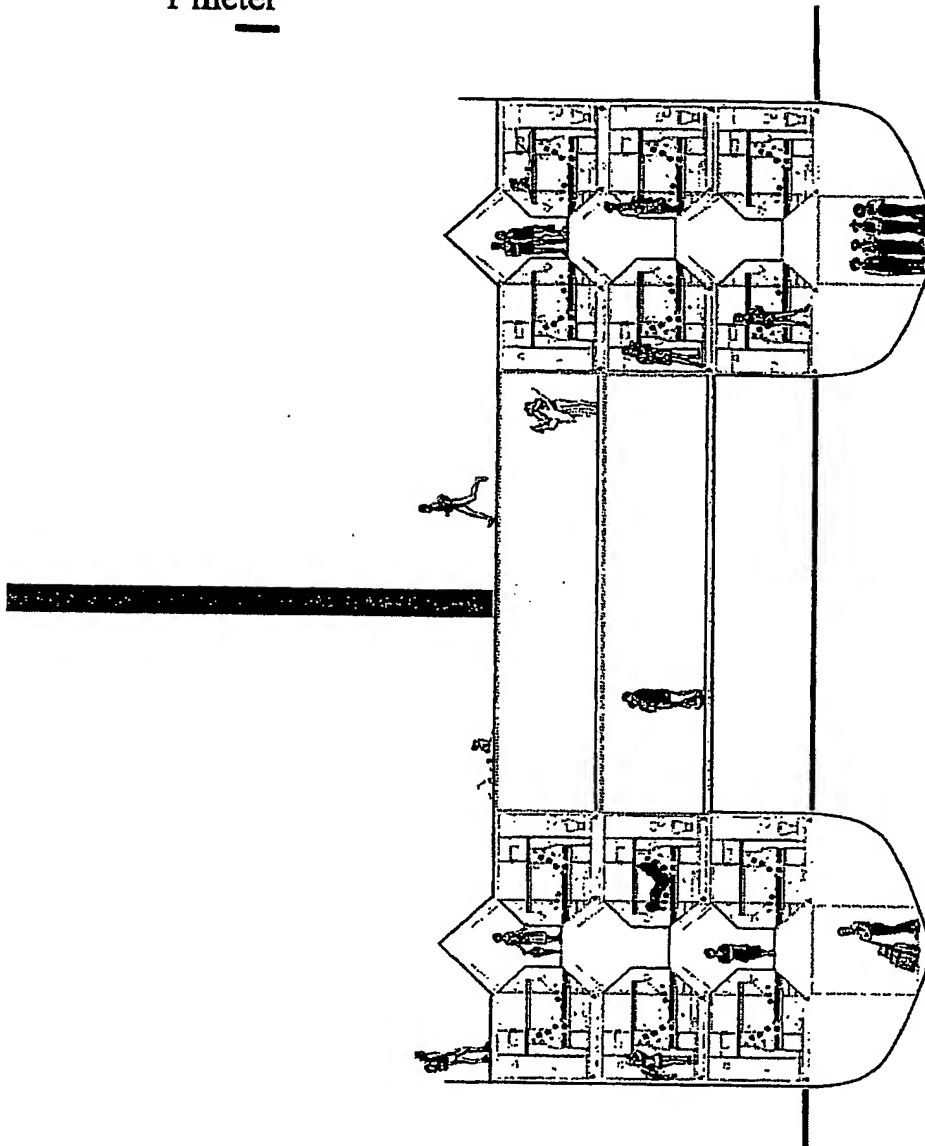
1 meter



# Baldakin Cruiser

200' Catamaran  
Section A

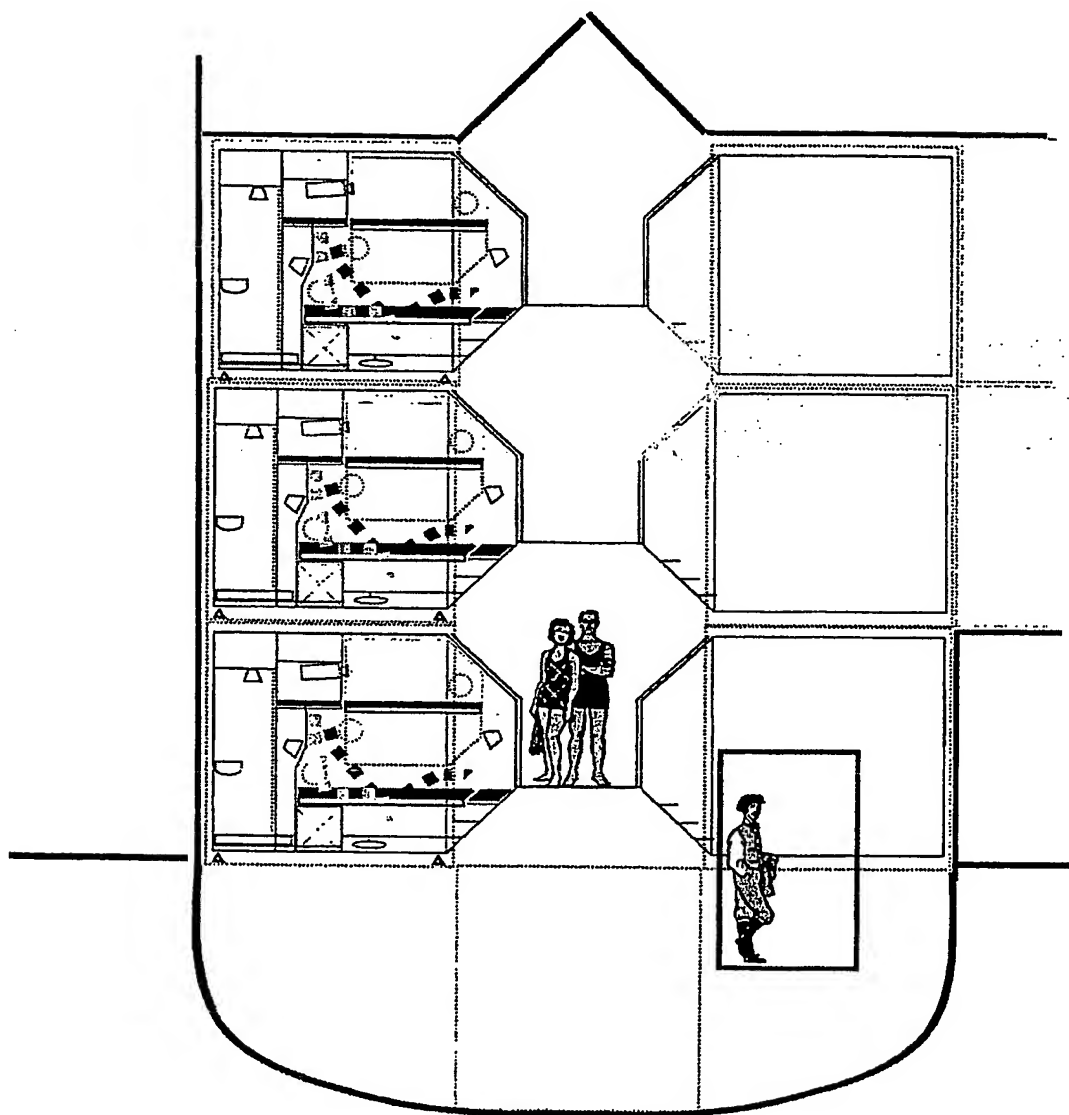
1 meter



# Baldakin Cruiser

200' Catamaran  
Section B

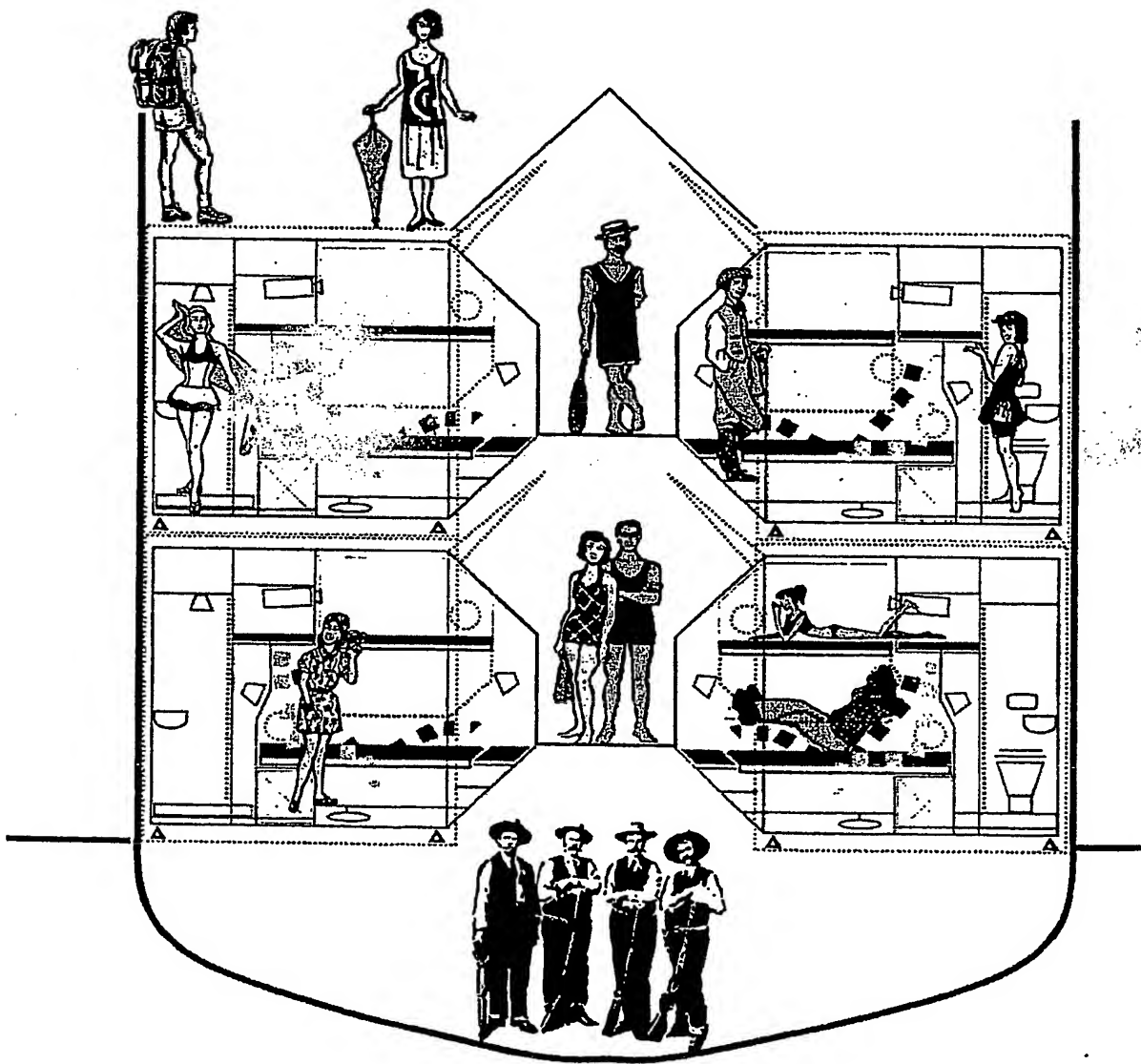
1 meter



# Baldakin Cruiser

200' Catamaran  
Section C

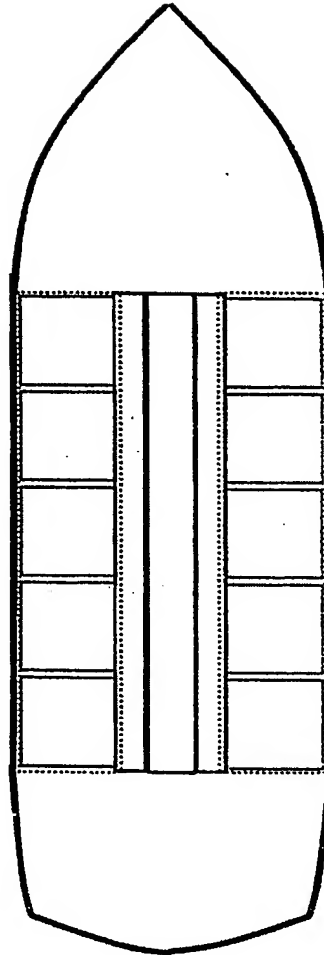
1 meter



# Baldakin Cruiser

80' Powerboat  
Top View

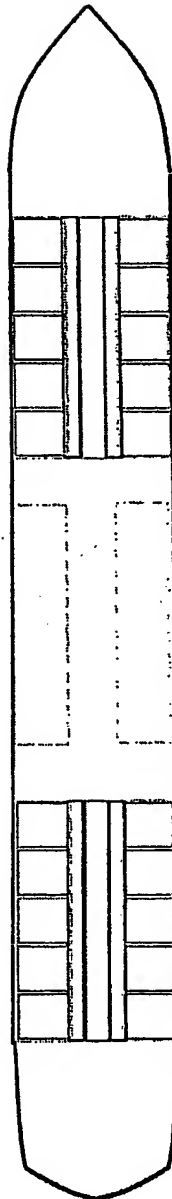
1 meter



# Baldakin Cruiser

200' Riverboat  
Top View

1 meter

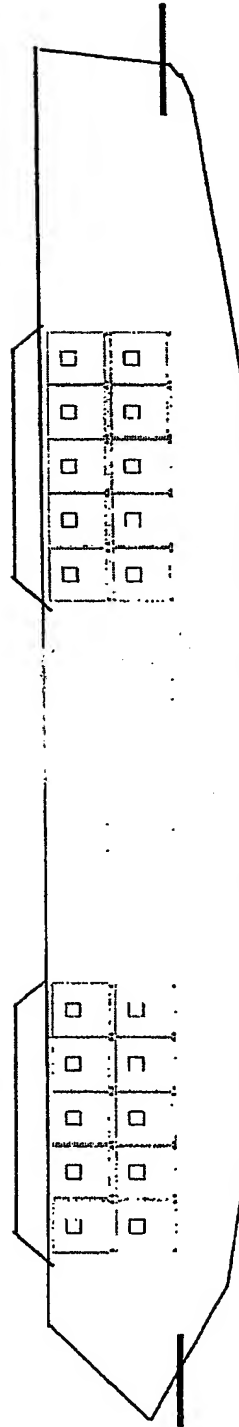




# Baldakin Cruiser

200' Riverboat  
Side View

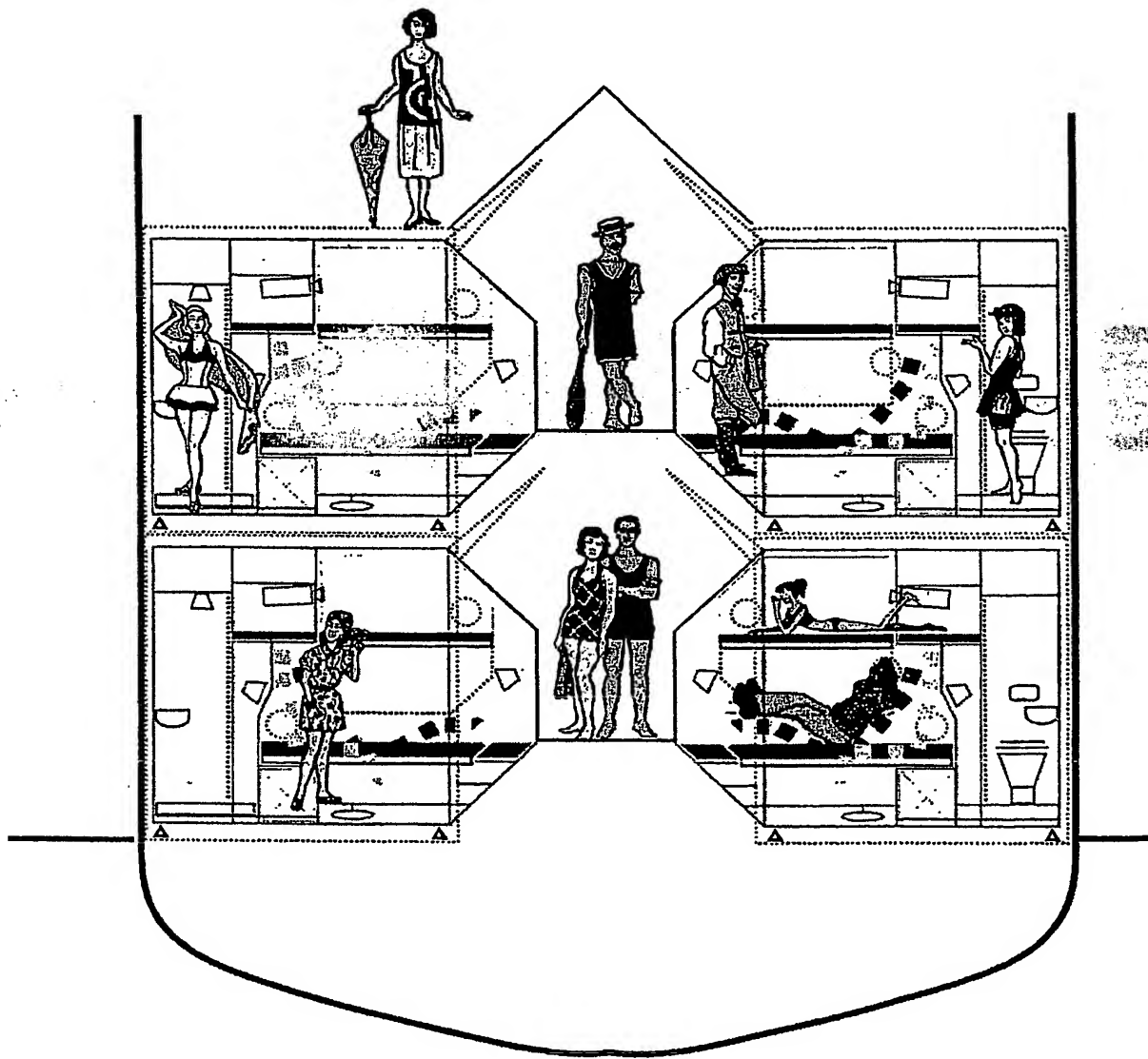
1 meter



# Baldakin Cruiser

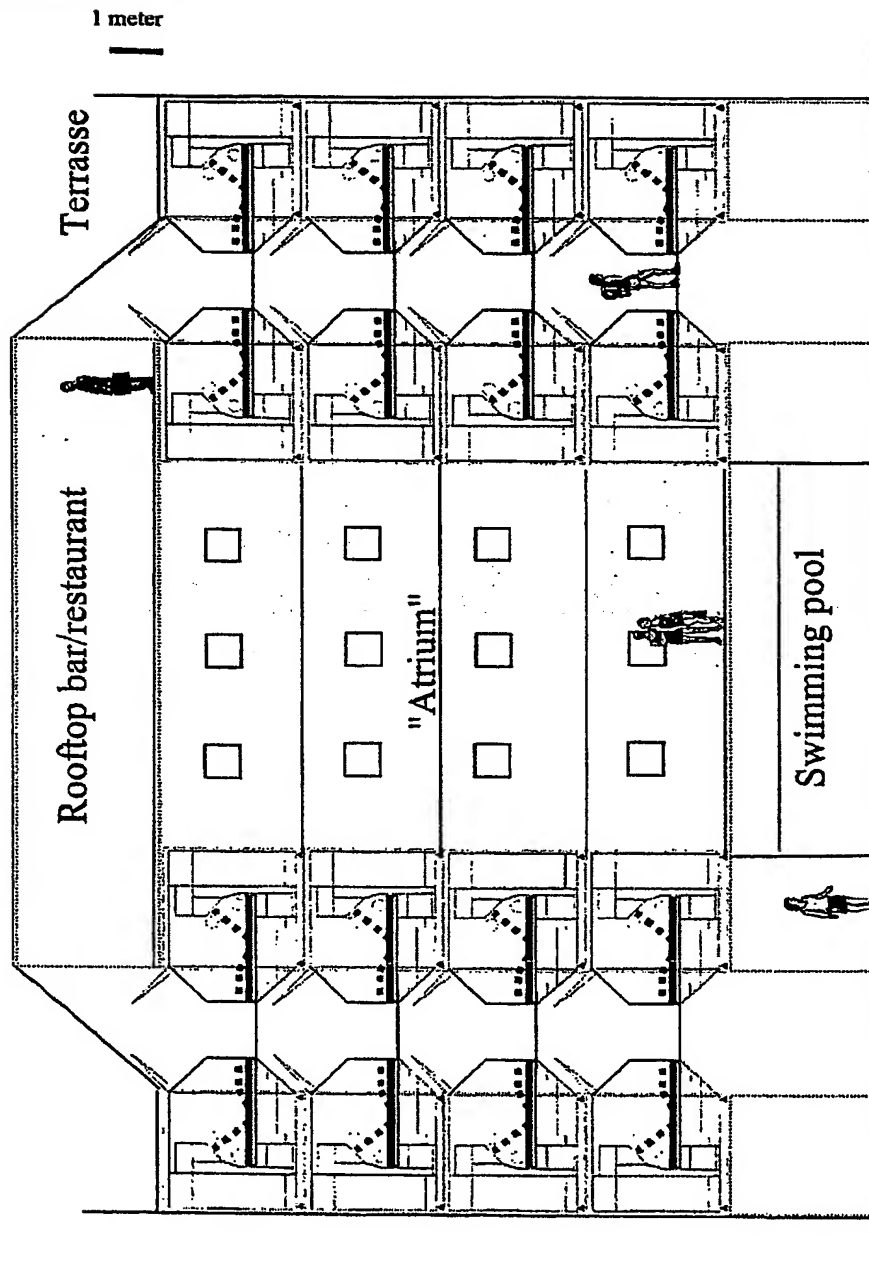
200' Riverboat  
Cross Section

1 meter



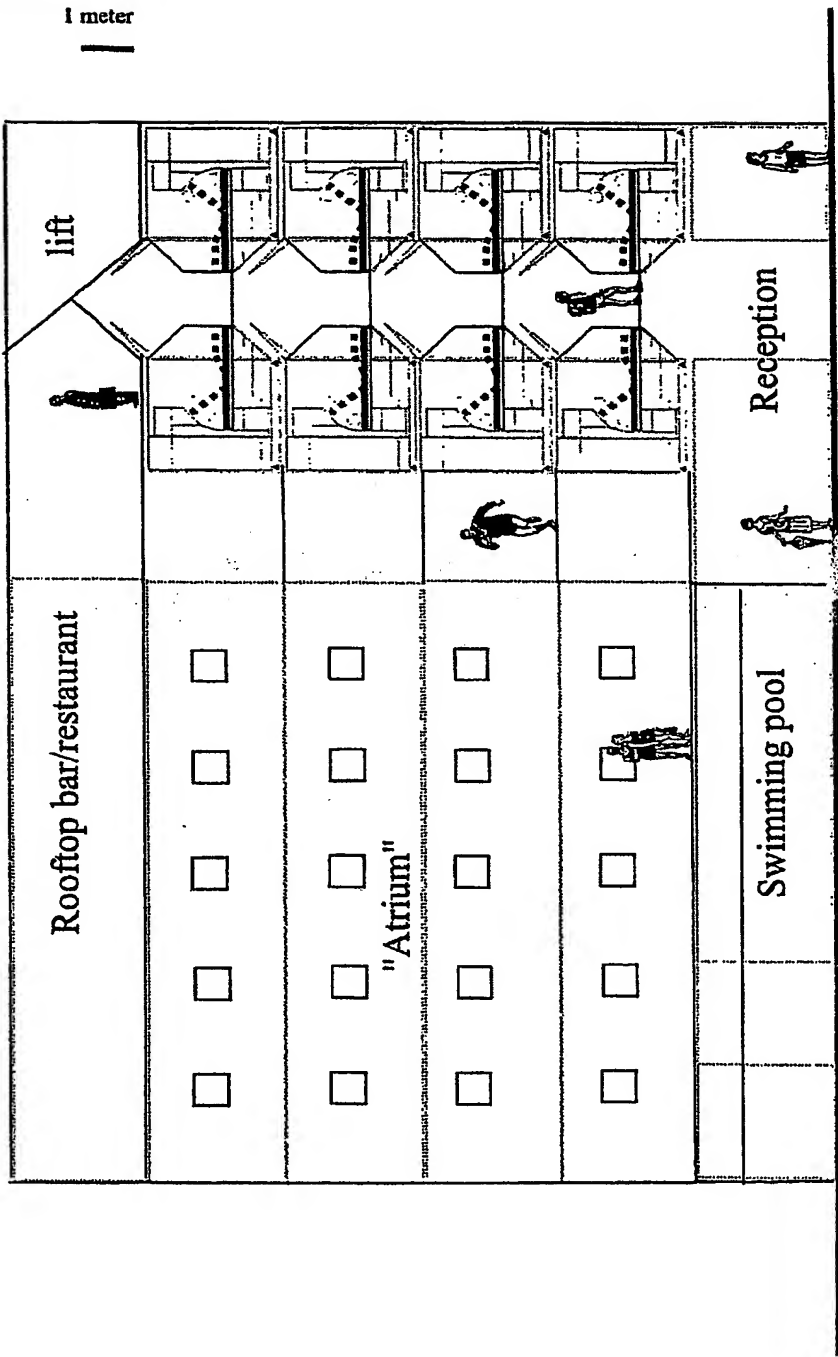
# Baldakin Hotel

6 floors Hotel  
Front View/Section



# Baldakin Hotel

6 floors Hotel  
Side View/Section

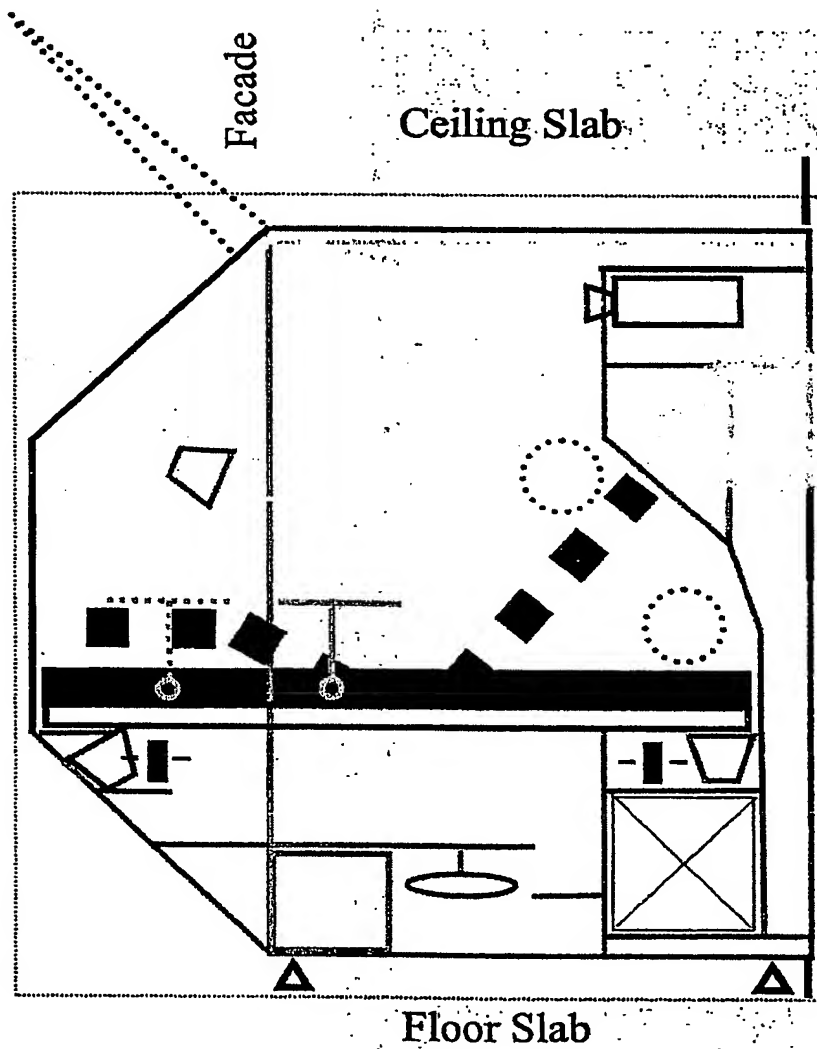


# Baldakin Other applications

## Integration in a Building

### Side View

1 meter



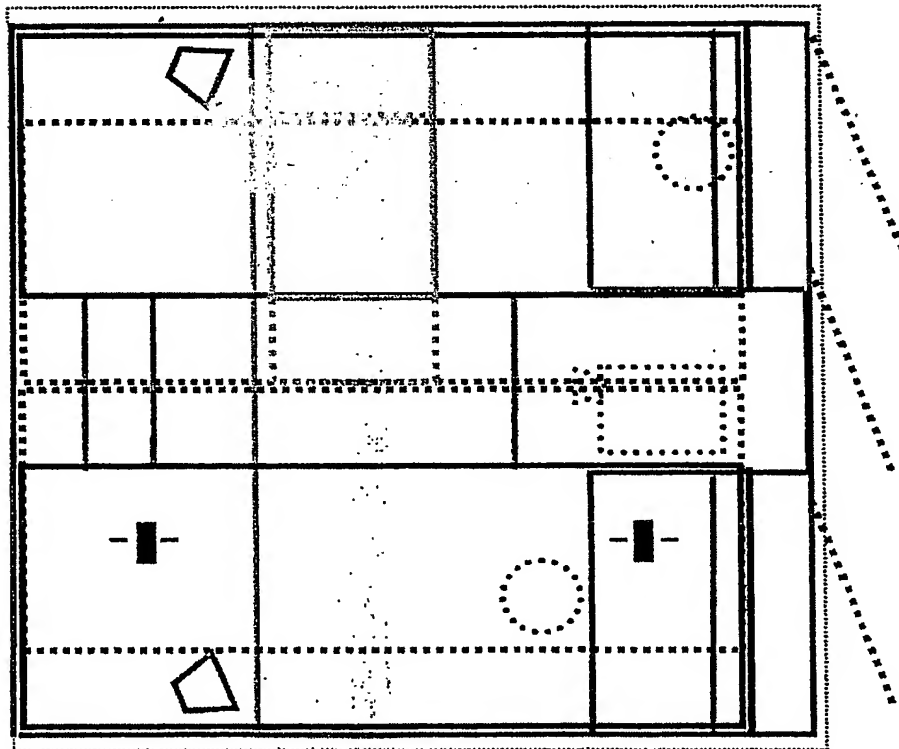
# Baldakin Other applications

## Integration in a Building

### Top View

1 meter

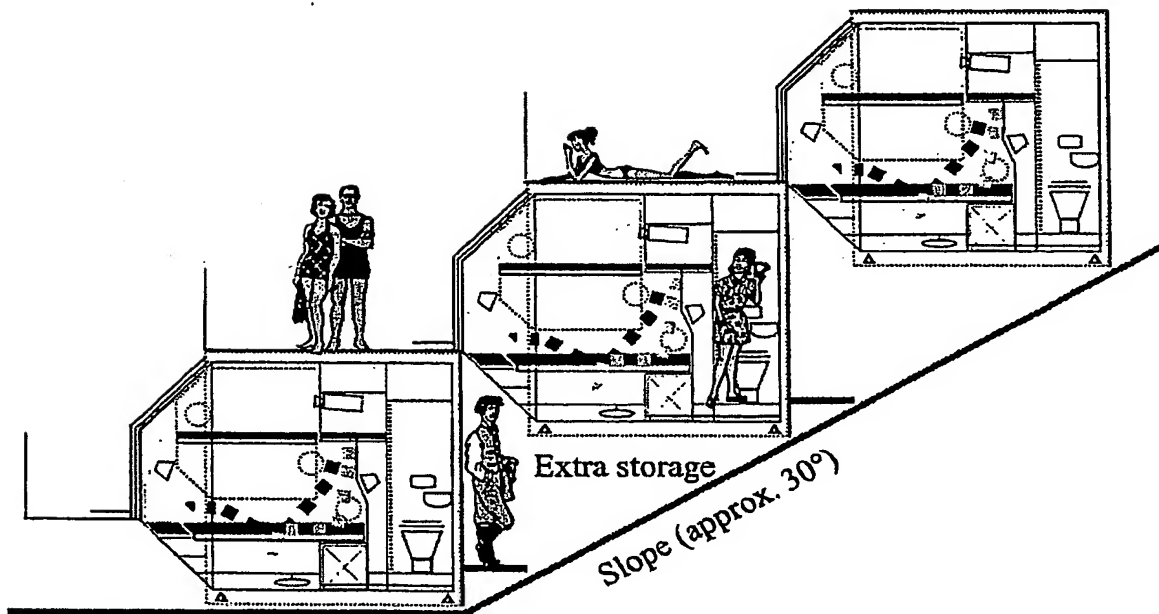
Facade



# Baldakin Other applications

"Step" combination  
Side View / Section

1 meter

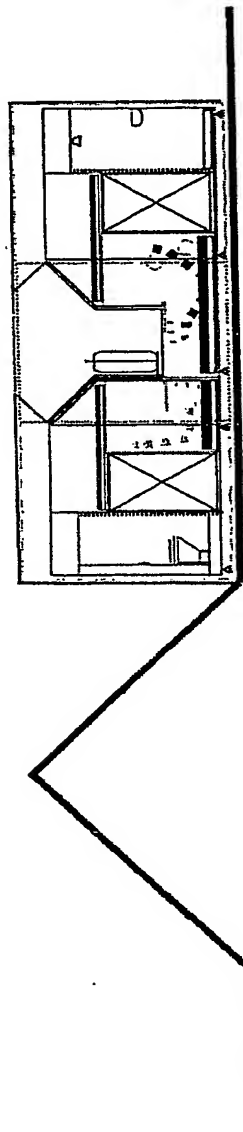


# Baldakin

## Other applications

"Military camp"  
Side View / Section

1 meter





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